

Wall Mounted Split Systems

Models: MWM 007F/FR
MWM 010F/FR
MWM 015F/FR
MWM 020F/FR
MWM 025F/FR
MWM 030F/FR



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This manual supercedes MWM-2004

Note: Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations, and experienced with this type of equipment.

Caution: Sharp edges and coil surfaces are a potential injury hazard. Avoid contact with them.

Warning: Moving machinery and electrical power hazards. May cause severe personal injury or death. Disconnect and lock off power before servicing equipment.

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Features

• Easy Installation

- The wall mounted fan coil unit is easily installed because of its compact size, slimness and light weight.
- Slim and short outdoor unit can be easily installed even in a narrow balcony and passageway and yet have a stable profile.

• Space Saving

- No space is required on either floor or ceiling. This newly developed super slim design for wall mounting maximizes floor space usage and enhances ceiling appearance where ceilings are low.

• Quiet Operation

- Cooling comfort is improved by whisper-quiet operation which is achieved by a tangential fan.

• Excellent Air Distribution

- Air discharge direction can be adjusted in four directions, manually or automatically by using LCD remote control.
- The new double louver design with automatic air swing function fully optimizes the room comfort by distributing the air evenly to the room.
- The unique skew fan design with larger diameter creates better air flow to the operating environment.

• Facilitated Maintenance Ensured

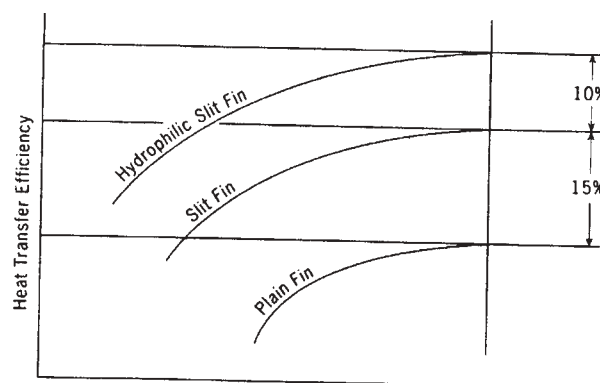
- The new design of air discharge housing whereby the fan blower can be easily accessed by just loosening two screws on the unit to provide a flexible, faster and easier way to clean up the fan blower and ionizer.
- Maintenance is easy for electrical components, piping and wiring as these are all easily accessible by merely removing front plastic panel.

• Wireless Remote Control

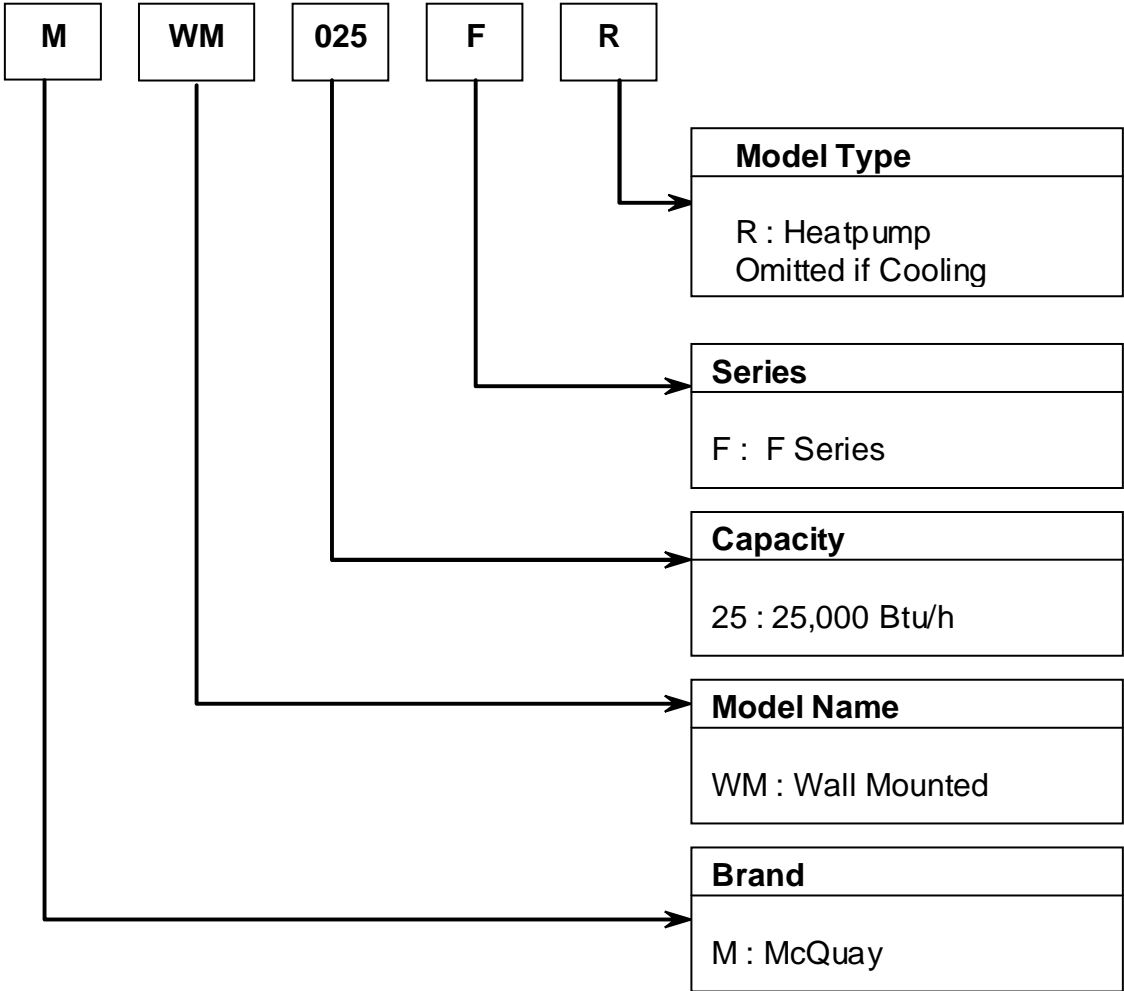
- The compact LCD transmitter is able to operate the air conditioner unit within the distance of 9 meters.
- Fan motor speed can be set at low/medium/high or automatic.
- Sleep mode auto control will gradually increase or decrease the setting temperature to provide a comfortable surrounding for sleeping.
- Air flow direction can be controlled automatically.
- Room temperature is controlled by electronic thermostat.
- The unit can be preset to on and off automatically for maximum of 15 hours by using timer on/off

• Slim Fin

- The unique Hydrophilic slit fin has greatly improved the air flow and the contact surfaces with the air thus to boost the cooling capacity.



Nomenclature



Specifications

R22 Models (Cooling Only)

MODEL			INDOOR UNIT		MWM 010F		MWM 015F		MWM 020F		MWM 025F			
			OUTDOOR UNIT		MLC 010C		MLC 015C		MLC 020B		MLC 025B			
NOMINAL COOLING CAPACITY			W		2840		3520		5569		7034			
			Btu/h		9700		12000		19000		24000			
INPUT POWER (W) - 1Ø [3Ø]					860		1132		1730 [2136]		2480 [2715]			
RUNNING CURRENT (A) - 1Ø [3Ø]					3.6		4.9		7.7 [4.0]		11.9 [5.1]			
INDOOR UNIT	POWER SOURCE			V / Ph / Hz		220-240 / 1 / 50								
	REFRIGERANT / CONTROL					R22 / CAPILLARY TUBE IN OUTDOOR								
	FAN	FAN TYPE				ANTI FUNGUS CROSS FLOW FAN								
		AIR FLOW				L/s / cfm		142 / 300		212 / 450		274 / 580		
		FAN MOTOR				4 POLES X 10W		4 POLES X 12W		4 POLES X 20W		4 POLES X 25W		
		RATED INPUT POWER (W)				25		26		53		57		
		RATED RUNNING CURRENT (A)				0.11				0.23		0.24		
	COIL	FAN MOTOR PROTECTION				THERMAL OVERLOAD RELAY								
		TUBE	MATERIAL				SEAMLESS COPPER TUBE							
			TUBE PATTERN				INNER GROOVED							
			DIAMETER				mm / in		7.0 / 0.276					
		THICKNESS				mm / in		0.28 / 0.011						
		FIN	MATERIAL				ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)							
			THICKNESS				mm / in		0.11 / 0.0043					
			ROW						2					
		FIN PER INCH						18						
		FACE AREA				m ² / ft ²		0.198 / 2.131				0.254 / 2.733		
	DIMENSION	HEIGHT		mm / in		290 / 11.4				306 / 12.0				
		WIDTH		mm / in		815 / 32.1				1062 / 41.8				
		DEPTH		mm / in		179 / 7.0				202 / 8.0				
	WEIGHT		kg / lb		9.5 / 20.9				16 / 35.3					
	SOUND PRESSURE LEVEL - H / M / L			dBA		38 / 34 / 30		38 / 35 / 31		45 / 42 / 39		47 / 44 / 42		
	CONTROL		ROOM TEMPERATURE				THERMOSTAT ELECTRONIC CONTROL							
			AIR DISCHARGE				LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)							
			OPERATION				LCD REMOTE CONTROL							
	CONDENSATE DRAIN SIZE			mm / in		16 / 0.63				20 / 0.79				
AIR FILTER					SARANET+IONIZER+DEODORIZER									
PACKING DIMENSION	HEIGHT		mm / in		371 / 14.6				382 / 15.0					
	WIDTH		mm / in		875 / 34.4				1130 / 44.5					
	DEPTH		mm / in		269 / 10.6				268 / 10.6					
OUTDOOR UNIT	POWER SOURCE					220-240/1/50								
	COMPRESSOR TYPE				V / Ph / Hz		220-240/1/50 (380-415/3/50)							
	COMP.	CAPACITOR (µF) - 1Ø [3Ø]				30		35		45 [NIL]		45 (NIL)		
		RATED RUNNING CURRENT - 1Ø [3Ø]				3.3		4.5		7.1 [3.7]		11.2 [4.8]		
		RATED INPUT POWER - 1Ø [3Ø]				781		1044		1659 [1950]		2325 [2525]		
		LOCK ROTOR AMP - 1Ø [3Ø]				20		30		47 [21.4]		67 [24.9]		
		PROTECTION DEVICE - 1Ø [3Ø]				EXT. O.L.P		INT. O.L.P		INT. O.L.P [INT. TH. + EXT. P.P]				
		FAN	FAN TYPE / DRIVE				PROPELLER / DIRECT							
	BLADE MATERIAL				GLASS REINFORCED ACRYL STYRENE RESIN									
	DIAMETER				mm / in		404 / 16							
	RATED RUNNING CURRENT (A)				0.23		0.26		0.41		0.41			
	MOTOR OUTPUT (W)				35		35		55		55			
	COIL	RATED INPUT POWER (W)				54		62		98		98		
		TUBE	MATERIAL				SEAMLESS COPPER TUBE							
			TUBE PATTERN				INNER GROOVED		PLAIN		INNER GROOVED			
			DIAMETER				mm / in		9.52 / 0.375					
		THICKNESS				mm / in		0.33 / 0.013						
		FIN	MATERIAL				ALUMINIUM (SLIT FIN)		ALUMINIUM (CORRUGATED FIN TYPE)					
			THICKNESS				mm / in		0.11 / 0.004		0.12 / 0.005			
			ROW						1		2		2	
		FIN PER INCH						18		14		14		
		FACE AREA				m ² / ft ²		0.36 / 3.94		0.51 / 5.53		0.51 / 5.53		
	DIMENSION	HEIGHT		mm / in		540 / 21.3				646 / 25.4				
		WIDTH		mm / in		700 / 27.6				840 / 33.1				
		DEPTH		mm / in		250 / 9.8				330 / 13.0				
	WEIGHT		kg / lb		32 / 70.5				57 / 125.7		58 / 127.9			
CASING	MATERIAL				GALVANISED MILD STEEL									
	THICKNESS				mm / in		0.5-2.0 / 0.02-0.08				0.8 / 0.031			
FINISHING					EPOXY POLYESTER POWDER									
SOUND PRESSURE LEVEL			dBA		46		49		52		53			
PIPE	TYPE				FLARE VALVE									
	SIZE	LIQUID		mm / in		6.35 / 1/4		6.35 / 1/4		9.52 / 3/8				
		GAS		mm / in		9.52 / 3/8		12.70 / 1/2		15.88 / 5/8		15.88 / 5/8		
	PACKING DIMENSION	HEIGHT		mm / in		620 / 24.4				710 / 28.0				
		WIDTH		mm / in		810 / 31.9				957 / 37.7				
DEPTH		mm / in		330 / 13.0				461 / 18.1						
REFRIGERANT CHARGE			kg / lb		0.8 / 1.8		0.86 / 1.9		1.7 / 3.7		1.5 / 3.4			

Abbreviation

INT. TH.	- Internal Thermostat
INT. O.L.P	- Internal Overload Protector
EXT. O.L.P	- External Overload Protector
EXT. P.P	- External Phase Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING CAPACITY IS BASED ON THE CONDITIONS BELOW :

- 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

R22 Models (Cooling Only)

MODEL	INDOOR UNIT		MWM 030F	
	OUTDOOR UNIT		MLC 030B	MLC 030C
NOMINAL COOLING CAPACITY		W Btu/h	7913 27000	8792 30000
INPUT POWER		W	3010	2,690
RUNNING CURRENT		A	14.4	12.6
INDOOR UNIT	POWER SOURCE		220 - 240 / 1 / 50	
	REFRIGERANT / CONTROL		R22 / EXTERNAL ORIFICE KIT	
	FAN	FAN TYPE	ANTI FUNGUS CROSS FLOW FAN	
		AIR FLOW	349 / 740	
		FAN MOTOR	4 POLES X 45W	
		RATED INPUT POWER	71	
		RATED RUNNING CURRENT	0.30	
		FAN MOTOR PROTECTION	THERMAL OVERLOAD RELAY	
	COIL	TUBE MATERIAL	SEAMLESS COPPER TUBE	
		TUBE PATTERN	INNER GROOVED	
		DIAMETER	9.52 / 0.375	
		THICKNESS	0.33 / 0.013	
		FIN MATERIAL	ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)	
		THICKNESS	0.11 / 0.004	
		ROW	2	
		FIN PER INCH	16	
		FACE AREA	0.291 / 3.130	
	DIMENSION	HEIGHT	360 / 14.2	
		WIDTH	1200 / 47.2	
		DEPTH	200 / 7.9	
	WEIGHT		17 / 37.5	
	SOUND PRESSURE LEVEL - H/M/L		49 / 47 / 45	
	CONTROL	ROOM TEMPERATURE	THERMOSTAT ELECTRONIC CONTROL	
		AIR DISCHARGE	AUTO LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)	
		OPERATION	LCD REMOTE CONTROL	
	CONDENSATE DRAIN SIZE		20 / 0.79	
	AIR FILTER		SARANET+IONIZER+DEODORIZER	
	PACKING	HEIGHT	420 / 16.5	
		WIDTH	1267 / 49.9	
		DEPTH	260 / 10.2	
OUTDOOR UNIT	COMPRESSOR	COMPRESSOR TYPE	ROTARY HERMETIC	SCROLL
		POWER SOURCE	220 - 240 / 1 / 50	220 - 240 / 1 / 50
		CAPACITOR (µF)	50	50
		LOCKED ROTOR AMP (A)	66	82
		RATED RUNNING CURRENT (A)	13.5	11.3
		INPUT POWER (W)	2799	2386
		PROTECTION DEVICE	INT. O.L.P	INT. O.L.P / HI-LO PRESS. SWITCH
	FAN	POWER SOURCE	220 - 240 / 1 / 50	220 - 240 / 1 / 50
		FAN TYPE / DRIVE	PROPELLER / DIRECT	
		BLADE MATERIAL	GLASS REINFORCED ACRYL STYRENE RESIN	
		DIAMETER	406 / 16	610 / 24
		RATED RUNNING CURRENT	0.6	1.03
		MOTOR OUTPUT	80	145
		RATED INPUT POWER	140	233
	COIL	TUBE MATERIAL	SEAMLESS COPPER TUBE	
		TUBE PATTERN	INNER GROOVED	PLAIN
		DIAMETER	9.52 / 0.375	
		THICKNESS	0.33 / 0.013	
		FIN MATERIAL	ALUMINIUM (SLIT FIN TYPE)	
		THICKNESS	0.12 / 0.005	
		ROW	2	1
		FIN PER INCH	16	16
		FACE AREA	0.51 / 5.53	0.87 / 9.33
	DIMENSION	HEIGHT	646 / 25.4	850 / 33.46
		WIDTH	840 / 33.1	1030 / 40.55
		DEPTH	330 / 13.0	400 / 15.75
	WEIGHT		58 / 127.9	95 / 209.4
	CASING	MATERIAL	GALVANISED MILD STEEL	
		THICKNESS	0.8 / 0.031	
		FINISHING	POLYESTER POWDER	
	SOUND PRESSURE LEVEL		56	58
	PIPE	TYPE	FLARE VALVE	
		SIZE	9.52 / 3/8	
		LIQUID	15.88 / 5/8	
	PACKING	HEIGHT	710 / 27.9	1000 / 39.37
		WIDTH	957 / 37.7	1200 / 47.24
		DEPTH	461 / 18.2	560 / 22.05
	REFRIGERANT CHARGE		1.96 / 4.3	1.75 / 3.9

Abbreviation

INT. O.L.P - Internal Overload Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING CAPACITY IS BASED ON THE CONDITIONS BELOW :

a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

R22 Models (Heatpump)

MODEL				INDOOR UNIT		OUTDOOR UNIT		MWM 010FR	MWM 015FR	MWM 020FR	MWM 025FR		
								MLC 010CR	MLC 015CR	MLC 020BR	MLC 025BR		
NOMINAL COOLING CAPACITY				W		2780		3520	5569	7034			
				Btu/h		9500		12000	19000	24000			
NOMINAL HEATING CAPACITY				W		2780		3520	5569	7327			
				Btu/h		9500		12000	19000	25000			
INPUT POWER (W) - 1Ø [3Ø]				COOLING		860		1175	1730 (2136)	2470 (2715)			
				HEATING		770		1025	1910 (2146)	2430 (2831)			
RUNNING CURRENT (A) - 1Ø [3Ø]				COOLING		3.7		5.2	7.4 (4.0)	11.9 (5.1)			
				HEATING		3.3		4.6	8.3 (4.0)	11.4 (5.2)			
INDOOR UNIT	POWER SOURCE			V / Ph / Hz		220-240/1/50				220 - 240 / 1 / 50			
	REFRIGERANT / CONTROL			R22 / CAPILLARY TUBE IN OUTDOOR									
	FAN	FAN TYPE		ANTI FUNGUS CROSS FLOW FAN									
		AIR FLOW		L/s / cfm		142 / 300				450 / 212		580 / 274	
		FAN MOTOR				4 POLES X 10W		4 POLES X 12W		4 POLES X 20W		4 POLES X 25W	
		RATED INPUT POWER (W)				25		26		53		55	
		RATED RUNNING CURRENT (A)				0.11				0.23		0.24	
	COIL	FAN MOTOR PROTECTION <td colspan="9">THERMAL OVERLOAD RELAY</td>		THERMAL OVERLOAD RELAY									
		TUBE	MATERIAL <td colspan="9">SEAMLESS COPPER TUBE</td>		SEAMLESS COPPER TUBE								
			TUBE PATTERN <td colspan="9">INNER GROOVED</td>		INNER GROOVED								
			DIAMETER <td colspan="2">mm / in<td colspan="6">7.0 / 0.276</td></td>		mm / in <td colspan="6">7.0 / 0.276</td>		7.0 / 0.276						
		FIN	THICKNESS <td colspan="2">mm / in<td colspan="6">0.28 / 0.011</td></td>		mm / in <td colspan="6">0.28 / 0.011</td>		0.28 / 0.011						
			MATERIAL <td colspan="9">ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)</td>		ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)								
			THICKNESS <td colspan="2">mm / in<td colspan="6">0.11 / 0.004</td></td>		mm / in <td colspan="6">0.11 / 0.004</td>		0.11 / 0.004						
		ROW <td colspan="2"></td> <td colspan="6">2</td>				2							
		FIN PER INCH <td colspan="2"></td> <td colspan="6">18</td>				18							
		FACE AREA <td colspan="2">m² / ft²</td> <td colspan="4">0.198 / 2.131</td> <td colspan="4">0.254 / 2.733</td>		m ² / ft ²		0.198 / 2.131				0.254 / 2.733			
	DIMENSION	HEIGHT <td colspan="2">mm / in</td> <td colspan="4">290 / 11.4</td> <td colspan="4">306 / 12.0</td>		mm / in		290 / 11.4				306 / 12.0			
		WIDTH <td colspan="2">mm / in</td> <td colspan="4">815 / 32.1</td> <td colspan="4">1062 / 41.8</td>		mm / in		815 / 32.1				1062 / 41.8			
		DEPTH <td colspan="2">mm / in</td> <td colspan="4">179 / 7.0</td> <td colspan="4">202 / 8.0</td>		mm / in		179 / 7.0				202 / 8.0			
	WEIGHT <td colspan="2">kg / lb</td> <td colspan="4">9.5 / 20.9</td> <td colspan="4">16 / 35.3</td>		kg / lb		9.5 / 20.9				16 / 35.3				
	SOUND PRESSURE LEVEL - H / M / L			dBA		38 / 34 / 30		38 / 35 / 31		45 / 42 / 39		47 / 44 / 42	
	CONTROL		ROOM TEMPERATURE <td colspan="8">THERMOSTAT ELECTRONIC CONTROL</td>		THERMOSTAT ELECTRONIC CONTROL								
			AIR DISCHARGE OPERATION <td colspan="8">LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT) LCD REMOTE CONTROL</td>		LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT) LCD REMOTE CONTROL								
	CONDENSATE DRAIN SIZE			mm / in		16 / 0.63				20 / 0.79			
AIR FILTER			SARANET+IONIZER+DEODORIZER										
PACKING DIMENSION	HEIGHT <td colspan="2">mm / in</td> <td colspan="4">371 / 14.6</td> <td colspan="4">382 / 15.0</td>		mm / in		371 / 14.6				382 / 15.0				
	WIDTH <td colspan="2">mm / in</td> <td colspan="4">875 / 34.4</td> <td colspan="4">1130 / 44.5</td>		mm / in		875 / 34.4				1130 / 44.5				
	DEPTH <td colspan="2">mm / in</td> <td colspan="4">269 / 10.6</td> <td colspan="4">268 / 10.6</td>		mm / in		269 / 10.6				268 / 10.6				
COMPRESSOR	POI			V/Ph/Hz		220-240/1/50				240/150 (380/3/50)			
	COMPRESSOR TYPE <td colspan="2">V/Ph/Hz</td> <td colspan="4">ROTARY HERMETIC</td> <td colspan="4">ROTARY HERMETIC</td>			V/Ph/Hz		ROTARY HERMETIC				ROTARY HERMETIC			
	CAPACITOR (µF) - 1Ø (3Ø) <td colspan="2"></td> <td colspan="2">30</td> <td colspan="2">35</td> <td colspan="2">45 (NIL)</td> <td>45 (NIL)</td>					30		35		45 (NIL)		45 (NIL)	
	CURRENT 1Ø (3Ø)	COOLING <td colspan="2">3.3</td> <td colspan="2">4.8</td> <td colspan="2">6.8 (3.7)</td> <td colspan="2">11.2 (4.8)</td>		3.3		4.8		6.8 (3.7)		11.2 (4.8)			
		HEATING <td colspan="2">2.9</td> <td colspan="2">4.2</td> <td colspan="2">7.6 (3.7)</td> <td colspan="2">10.7 (4.9)</td>		2.9		4.2		7.6 (3.7)		10.7 (4.9)			
	RATED POWER 1Ø (3Ø)	COOLING <td colspan="2">781</td> <td colspan="2">1087</td> <td colspan="2">1579 (1950)</td> <td colspan="2">2322 (2525)</td>		781		1087		1579 (1950)		2322 (2525)			
		HEATING <td colspan="2">691</td> <td colspan="2">937</td> <td colspan="2">1759 (1960)</td> <td colspan="2">2282 (2641)</td>		691		937		1759 (1960)		2282 (2641)			
	LOCKED ROTOR AMP. (A)			20		30		47 (21.4)		63 (24.9)			
	PROTECTION DEVICE - 1Ø (3Ø)			EXT. O.L.P		INT. O.L.P		INT. O.L.P (EXT. P.P)					
	FAN	FAN TYPE / DRIVE			PROPELLER / DIRECT								
BLADE MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN										
DIAMETER <td colspan="2">mm / in</td> <td colspan="4">404/16</td> <td colspan="4">406 / 16</td>		mm / in		404/16				406 / 16					
RATED RUNNING CURRENT (A)			0.23		0.26				0.41				
MOTOR OUTPUT (W)			35		35				55				
RATED INPUT POWER (W)			54		62		98		93				
COIL	TUBE	MATERIAL		SEAMLESS COPPER TUBE									
		TUBE PATTERN		INNER GROOVED				PLAIN		INNER GROOVED			
		DIAMETER <td colspan="2">mm / in</td> <td colspan="4">9.52 / 0.375</td> <td colspan="4">9.52 / 0.375</td>		mm / in		9.52 / 0.375				9.52 / 0.375			
		THICKNESS <td colspan="2">mm / in</td> <td colspan="4">0.33 / 0.013</td> <td colspan="4">0.33 / 0.013</td>		mm / in		0.33 / 0.013				0.33 / 0.013			
		MATERIAL		ALUMINIUM (SLIT FIN)				ALUMINIUM (CORRUGATED FIN TYPE)					
	FIN	THICKNESS <td colspan="2">mm / in</td> <td colspan="4">0.11 / 0.004</td> <td colspan="4">0.12 / 0.0050</td>		mm / in		0.11 / 0.004				0.12 / 0.0050			
		ROW				1				2			
		FIN PER INCH				18				14			
		FACE AREA <td colspan="2">m² / ft²</td> <td colspan="4">0.36 / 3.94</td> <td colspan="4">0.51 / 5.53</td>		m ² / ft ²		0.36 / 3.94				0.51 / 5.53			
		DIMENSION	HEIGHT <td colspan="2">mm / in</td> <td colspan="4">540 / 21.3</td> <td colspan="4">646 / 25.4</td>		mm / in		540 / 21.3				646 / 25.4		
WIDTH <td colspan="2">mm / in</td> <td colspan="4">700 / 27.6</td> <td colspan="4">840 / 33.1</td>			mm / in		700 / 27.6				840 / 33.1				
DEPTH <td colspan="2">mm / in</td> <td colspan="4">250 / 9.8</td> <td colspan="4">330 / 13.0</td>			mm / in		250 / 9.8				330 / 13.0				
WEIGHT <td colspan="2">kg / lb</td> <td colspan="4">32 / 70.5</td> <td colspan="4">57 / 125.7</td> <td>58 / 127.9</td>		kg / lb		32 / 70.5				57 / 125.7				58 / 127.9	
CASING		MATERIAL <td colspan="8">GALVANISED MILD STEEL</td>		GALVANISED MILD STEEL									
		THICKNESS <td colspan="2">mm / in</td> <td colspan="4">0.5-2.0 / 0.02-0.08</td> <td colspan="4">0.8 / 0.031</td>		mm / in		0.5-2.0 / 0.02-0.08				0.8 / 0.031			
FINISHING		EPOXY POLYESTER POWDER											
SOUND PRESSURE LEVEL			dBA		46		49		52		53		
PIPE	TYPE			FLARE VALVE									
	SIZE	LIQUID <td colspan="2">mm / in</td> <td colspan="4">6.35 / 1/4</td> <td colspan="2">6.35 / 1/4</td> <td>9.52 / 3/8</td>		mm / in		6.35 / 1/4				6.35 / 1/4		9.52 / 3/8	
		GAS <td colspan="2">mm / in</td> <td colspan="4">9.52 / 3/8</td> <td colspan="2">12.70 / 1/2</td> <td>15.88 / 5/8</td>		mm / in		9.52 / 3/8				12.70 / 1/2		15.88 / 5/8	
	PACKING DIMENSION	HEIGHT <td colspan="2">mm / in</td> <td colspan="4">620 / 24.4</td> <td colspan="4">710 / 28.0</td>		mm / in		620 / 24.4				710 / 28.0			
		WIDTH <td colspan="2">mm / in</td> <td colspan="4">810 / 31.9</td> <td colspan="4">957 / 37.7</td>		mm / in		810 / 31.9				957 / 37.7			
DEPTH <td colspan="2">mm / in</td> <td colspan="4">330 / 13.0</td> <td colspan="4">461 / 18.1</td>		mm / in		330 / 13.0				461 / 18.1					
REFRIGERANT CHARGE			kg / lb		0.8 / 1.8		0.9 / 2.0		1.6 / 3.5				

Abbreviation

INT. O.L.P	- Internal Overload Protector
EXT. O.L.P	- External Overload Protector
EXT. P.P	- External Phase Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

- COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR
- HEATING - 21.1°C DB / 15.6°C WB INDOOR AND 8.3°C DB / 6.1°C WB OUTDOOR

R22 Models (Heatpump)

MODEL			INDOOR UNIT		MWM 030FR		
			OUTDOOR UNIT		MLC 030BR	MLC 030CR	
NOMINAL COOLING CAPACITY			W		7620	8790	
			Btu/h		26000	30000	
NOMINAL HEATING CAPACITY			W		8206	8790	
			Btu/h		28000	30000	
INPUT POWER (COOLING) - 1Ø <3Ø>			W		2992	2944 < 3204 >	
INPUT POWER (HEATING) - 1Ø <3Ø>			W		2831	2864 < 3060 >	
RUNNING CURRENT(COOLING) - 1Ø <3Ø>			A		14.3	14.3 < 5.4 >	
RUNNING CURRENT (HEATING) - 1Ø <3Ø>			A		13.9	13.7 < 5.3 >	
INDOOR UNIT	POWER SOURCE		V / Ph / Hz		220 - 240 / 1 / 50	220 - 240 / 1 / 50	
	REFRIGERANT / CONTROL				R22 / OUTDOOR CAP TUBE	R22 / OUTDOOR CAP TUBE + TXV	
	FAN	FAN TYPE			ANTI FUNGUS CROSS FLOW FAN		
		AIR FLOW	L/s / cfm		349 / 740		
		FAN MOTOR			4 POLES X 45W		
		RATED INPUT POWER	W		71		
		RATED RUNNING CURRENT	A		0.30		
		FAN MOTOR PROTECTION			THERMAL OVERLOAD RELAY		
	COIL	TUBE	MATERIAL		SEAMLESS COPPER TUBE		
			TUBE PATTERN		INNER GROOVED		
		DIAMETER	mm / in	9.52 / 0.375			
			THICKNESS	mm / in	0.35 / 0.013		
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)		
			THICKNESS	mm / in	0.11 / 0.004		
		ROW		2			
		FIN PER INCH		16			
		FACE AREA	m ² / ft ²	0.291 / 3.130			
		DIMENSION	HEIGHT	mm / in	360 / 14.2		
	WIDTH		mm / in	1200 / 47.2			
	DEPTH		mm / in	200 / 7.9			
	WEIGHT		kg / lb	17 / 37.5			
	SOUND PRESSURE LEVEL - H / M / L		dBA	49 / 47 / 45			
	CONTROL	ROOM TEMPERATURE		THERMOSTAT ELECTRONIC CONTROL			
		AIR DISCHARGE		AUTO LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)			
		OPERATION		LCD REMOTE CONTROL			
	CONDENSATE DRAIN SIZE		mm / in	20 / 0.79			
	AIR FILTER			SARANET+IONIZER+DEODORIZER			
	PACKING	HEIGHT	mm / in	420 / 16.5			
		WIDTH	mm / in	1267 / 49.9			
		DEPTH	mm / in	260 / 10.2			
	OUTDOOR UNIT	COMPRESSOR	COMPRESSOR TYPE		ROTARY HERMETIC	SCROLL	
			POWER SOURCE		V / Ph / Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50 / < 380 - 415 / 3 / 50 >
			CAPACITOR - mF 1Ø / < 3Ø >		50	50	
			LOCKED ROTOR AMP. - A 1Ø / < 3Ø >		66	82 <40>	
			RATED RUNNING CURRENT (COOLING) - A 1Ø / < 3Ø >		13.4	11.3 <3.7>	
			RATED RUNNING CURRENT (HEATING) - A 1Ø / < 3Ø >		13.0	10.9 <3.6>	
			INPUT POWER (COOLING) - W 1Ø / < 3Ø >		2781	2386 <2342>	
			INPUT POWER (HEATING) - W 1Ø / < 3Ø >		2620	2314 <2272>	
			PROTECTION DEVICE		INT. O.L.P	INT. O.L.P / HI-LO PRESS. SWITCH	
FAN		POWER SOURCE		V / Ph / Hz	220 - 240 / 1 / 50	220 - 240 / 1 / 50	
		FAN TYPE / DRIVE		PROPELLER / DIRECT			
		BLADE MATERIAL		GLASS REINFORCED ACRYL STYRENE RESIN			
		DIAMETER	mm / in	406 / 16	610 / 24		
		RATED RUNNING CURRENT	A	0.6	1.03		
COIL	TUBE	MATERIAL		SEAMLESS COPPER TUBE			
		TUBE PATTERN		INNER GROOVED	PLAIN		
	DIAMETER	mm / in	9.52 / 3/8				
		THICKNESS	mm / in	0.33 / 0.013			
	FIN	MATERIAL		ALUMINIUM (SLIT FIN TYPE)	ALUMINIUM (CORRUGATED FIN TYPE)		
		THICKNESS	mm / in	0.12 / 0.005			
	ROW		2				
	FIN PER INCH		16				
	FACE AREA	m ² / ft ²	0.51 / 5.53		0.87 / 9.33		
DIMENSION	HEIGHT	mm / in	646 / 25.40	850 / 33.46			
	WIDTH	mm / in	840 / 33.10	1030 / 40.55			
	DEPTH	mm / in	330 / 13.00	400 / 15.75			
WEIGHT		kg / lb	58 / 127.9	95 / 209.4			
CASING	MATERIAL		GALVANISED MILD STEEL				
	THICKNESS		0.8 / 0.031				
	FINISHING		POLYESTER POWDER				
SOUND PRESSURE LEVEL		dBA	56	58			
PIPE	TYPE		FLARE VALVE				
	SIZE	LIQUID	mm / in	9.52 / 0.375			
		GAS	mm / in	15.88 / 0.625			
PACKING	HEIGHT		mm / in	710 / 27.95	1000 / 39.37		
	WIDTH		mm / in	957 / 37.68	1200 / 47.24		
	DEPTH		mm / in	461 / 18.15	560 / 22.05		
	REFRIGERANT CHARGE		kg / lb	1.8 / 4.0	2.3 / 5.1		

Abbreviation

INT. O.L.P - Internal Overload Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

b) HEATING - 21.1°C DB / 15.6°C WB INDOOR AND 8.3°C DB / 6.1°C WB OUTDOOR

R407C Models (Cooling Only)

MODEL			INDOOR UNIT		MWM 007F	MWM 010F	MWM 015F	MWM 020F	
			OUTDOOR UNIT		M4LC 007B	M4LC 010B	M4LC 015B	M4LC 020B	
NOMINAL COOLING CAPACITY			W		2170	2637	3223	5363	
			Btu/h		7400	9000	11000	18300	
INPUT POWER 1Ø < 3Ø >			W		856	986	1438	2298 < 2079 >	
RUNNING CURRENT 1Ø < 3Ø >			A		3.64	4.38	6.59	10.70 < 3.9 >	
INDOOR UNIT	POWER SOURCE			V / Ph / Hz	240 / 1 / 50				
	REFRIGERANT / CONTROL				R407C / OUTDOOR CAPILLARY TUBE				
	FAN	AIR FLOW		L/s / cfm	142 / 300		227 / 480		
		FAN MOTOR			4 POLES x 10 W	4 POLES x 10 W	4 POLES x 12 W	4 POLES x 20 W	
		RATED INPUT POWER			W	25	26	53	
		RATED RUNNING CURRENT			A	0.11	0.11	0.23	
		FAN MOTOR PROTECTION			THERMAL OVERLOAD RELAY				
	COIL	TUBE MATERIAL			SEAMLESS COPPER (INNER GROOVED)				
		DIAMETER		mm / in	7.0 / 0.276				
		THICKNESS		mm / in	0.28 / 0.011				
		FIN	MATERIAL			ALUMINIUM (HYDROPHILIC SLIT FIN)			
			THICKNESS		mm / in	0.11 / 0.0043			
			ROW			2			
		FIN PER INCH			18				
	FACE AREA			m ² / ft ²	0.198 / 2.131		0.254 / 2.733		
	DIMENSION	HEIGHT	mm / in	290 / 11.4		306 / 12.0			
		WIDTH	mm / in	815 / 32.1		1062 / 41.8			
		DEPTH	mm / in	179 / 7.0		202 / 8.0			
	WEIGHT			kg / lb	9.5 / 20.9		16 / 35.3		
	SOUND PRESSURE LEVEL			dBA	38 / 32 / 29	38 / 34 / 30	38 / 35 / 31	45 / 42 / 39	
	CONTROL	ROOM TEMPERATURE			THERMOSTAT ELECTRONIC CONTROL				
		AIR DISCHARGE			LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)				
OPERATION			LCD WIRELESS MICRO COMPUTER REMOTE CONTROL						
CONDENSATE DRAIN SIZE			mm / in	16 / 0.63		20 / 0.79			
AIR FILTER				SARANET+IONIZER+DEODORIZER					
PACKING DIMENSION	HEIGHT	mm / in	371 / 14.6		382 / 15.0				
	WIDTH	mm / in	875 / 34.4		1130 / 44.5				
	DEPTH	mm / in	269 / 10.6		268 / 10.6				
OUTDOOR UNIT	POWER SOURCE			V / Ph / Hz	240 / 1 / 50 / < 415 / 3 / 50 >				
	COMPRESSOR	COMPRESSOR TYPE			ROTARY HERMETIC				
		CAPACITOR			µF	25	30	30	45 / < NIL >
		RATED RUNNING CURRENT			A	3.32	4.00	6.20	9.91 / < 3.6 >
		RATED INPUT POWER			W	781	900	1350	2112 / < 1893 >
		LOCKED ROTOR AMP. 1Ø < 3Ø >			A	15	20	32	58 / < 21 >
		PROTECTION DEVICE			EXT. O.L.P	EXT. O.L.P	EXT. O.L.P	INT. O.L.P (EXT. P.P)	
	FAN	FAN TYPE / DRIVE			PROPELLER / DIRECT				
		BLADE MATERIAL			GLASS REINFORCED ACRYL STYRENE RESIN				
		DIAMETER		mm / in	355 / 14		406 / 16		
		RATED RUNNING CURRENT			A	0.21	0.28	0.56	
		MOTOR OUTPUT			W	20	25	55	
	COIL	RATED INPUT POWER			W	50	62	133	
		TUBE	MATERIAL		PLAIN	INNER GROOVED		PLAIN	
			DIAMETER		mm / in	9.52 / 3/8			
			THICKNESS		mm / in	0.35 / 0.014			
		FIN	MATERIAL		ALUMINIUM (SLIT FIN TYPE)				
			THICKNESS		mm / in	0.12 / 0.005			
			ROW		1	1	1	2	
	FIN PER INCH		16	18	19	14			
	FACE AREA			m ² /ft ²	0.25 / 2.66	0.32 / 3.50		0.51 / 5.53	
	DIMENSION	HEIGHT	mm / in	494 / 19.4		646 / 25.4			
		WIDTH	mm / in	740 / 29.1		840 / 33.1			
		DEPTH	mm / in	270 / 10.6		330 / 13.0			
	WEIGHT			kg / lb	27.5 / 60.6	31 / 68.3	34 / 74.9	57 / 125.7	
	SOUND PRESSURE LEVEL			dBA	47	48	49	52	
	CASING	MATERIAL			GALVANIZED MILD STEEL				
		THICKNESS		mm / in	0.8 / 0.031				
		FINISHING			EPOXY POLYESTER POWDER				
PIPE	TYPE			FLARE VALVE / AEROQUIP					
	SIZE	LIQUID	mm / in	6.35 / 1/4		6.35 / 1/4		6.35 / 1/4	
		GAS	mm / in	9.52 / 3/8		12.70 / 1/2		15.88 / 5/8	
PACKING DIMENSION	HEIGHT	mm / in	558 / 22.0		710 / 28.0				
	WIDTH	mm / in	851 / 33.5		957 / 37.7				
	DEPTH	mm / in	401 / 15.8		461 / 18.1				
REFRIGERANT CHARGE			kg / lb	0.55 / 1.2	0.78 / 1.7	0.93 / 2.1	1.65 / 3.6		

Abbreviation

INT. O.L.P	- Internal Overload Protector
EXT. O.L.P	- External Overload Protector
EXT. P.P	- External Phase Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING IS BASED ON THE CONDITIONS BELOW :

a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

R407C Models (Cooling Only)

MODEL		INDOOR UNIT		MWM 025F		MWM 030F	
		OUTDOOR UNIT		M4LC 025B		M4LC 030C	
NOMINAL COOLING CAPACITY			W	6155		8499	
			Btu/h	21000		29000	
INPUT POWER - 1Ø / < 3Ø >			W	2850 < 2698 >		2877 / < 2877 >	
RUNNING CURRENT - 1Ø / < 3Ø >			A	13.30 < 5.1 >		13.1 / < 5.0 >	
POWER SOURCE			V / Ph / Hz	240 / 1 / 50		220 - 240 / 1 / 50	
REFRIGERANT / CONTROL				R407C / OUTDOOR CAPILLARY TUBE		R407C / EXTERNAL ORIFICE KIT	
INDOOR UNIT	FAN	FAN TYPE		ANTI FUNGUS CROSS FLOW FAN			
		AIR FLOW		L/s / cfm	274 / 580	349 / 740	
		FAN MOTOR		4 POLES x 25 W			
		RATED INPUT POWER		W	57	86	
		RATED RUNNING CURRENT		A	0.24	0.40	
		FAN MOTOR PROTECTION		THERMAL OVERLOAD RELAY			
	COIL	TUBE	MATERIAL		SEAMLESS COPPER		
			TUBE PATTERN		INNER GROOVED		
			DIAMETER		mm / in	7.0 / 0.276	9.52 / 3/8
			THICKNESS		mm / in	0.28 / 0.011	0.33 / 0.013
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC SLIT FIN)		
			THICKNESS		mm / in	0.11 / 0.004	
			ROW			2	2
		FIN PER INCH			18	16	
		FACE AREA		m ² / ft ²	0.254 / 2.733	0.291 / 3.130	
	DIMENSION	HEIGHT		mm / in	306 / 12.0	360 / 14.2	
		WIDTH		mm / in	1062 / 41.8	1200 / 47.2	
		DEPTH		mm / in	202 / 8.0	200 / 7.9	
	WEIGHT		kg / lb	16 / 35.3	17 / 37.5		
	SOUND PRESSURE LEVEL - H/M/L		dBA	47 / 44 / 42	49 / 47 / 45		
	CONTROL	ROOM TEMPERATURE		THERMOSTAT ELECTRONIC CONTROL			
		AIR DISCHARGE		LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)			
		OPERATION		LCD WIRELESS MICRO COMPUTER REMOTE CONTROL			
	CONDENSATE DRAIN SIZE		mm / in	20 / 0.79			
	AIR FILTER			SARANET+IONIZER+DEODORIZER			
OUTDOOR UNIT	COMPRESSOR	COMPRESSION TYPE		ROTARY HERMETIC			
		POWER SOURCE		V / Ph / Hz	240 / 1 / 50 / < 415 / 3 / 50 >	220 - 240 / 1 / 50 / < 380 - 415 / 3 / 50 >	
		CAPACITOR - 1Ø / < 3Ø >		µF	50 / < NIL >	50 / < NIL >	
		LOCKED ROTOR AMP. - 1Ø / < 3Ø >		A	12.50 / < 4.8 >	82 / < 40 >	
		RATED RUNNING CURRENT - 1Ø / < 3Ø >		A	2660 / < 2508 >	11.8 / < 4.5 >	
		INPUT POWER - 1Ø / < 3Ø >		W	58 / < 26 >	2550 / < 2550 >	
	PROTECTION DEVICE			INT. O.L.P / HI-LO PRESS. SWITCH			
	FAN	POWER SOURCE		V/Ph/Hz	240 / 1 / 50	220 - 240 / 1 / 50	
		FAN TYPE / DRIVE		PROPELLER / DIRECT			
		BLADE MATERIAL		GLASS REINFORCED ACRYL STYRENE RESIN			
		DIAMETER		mm / in	406 / 16	610 / 24	
		RATED RUNNING CURRENT		A	0.56	1.09	
		MOTOR OUTPUT		W	55	145	
		RATED INPUT POWER		W	133	241	
	COIL	TUBE	MATERIAL		SEAMLESS COPPER TUBE		
			TUBE PATTERN		INNER GROOVED	PLAIN	
			DIAMETER		mm / in	9.52 / 3/8	9.52 / 3/8
			THICKNESS		mm / in	0.35 / 0.014	0.33 / 0.013
		FIN	MATERIAL		ALUMINIUM (SLIT FIN TYPE)	ALUMINIUM (CORRUGATED FIN TYPE)	
			THICKNESS		mm / in	0.127 / 0.005	0.12 / 0.005
			ROW		2	1	
		FIN PER INCH			14	16	
		FACE AREA		m ² / ft ²	0.51 / 5.53	0.87 / 9.33	
	DIMENSION	HEIGHT		mm / in	646 / 25.4	850 / 33.46	
		WIDTH		mm / in	840 / 33.1	1030 / 40.55	
		DEPTH		mm / in	330 / 13.0	400 / 15.75	
	WEIGHT		kg / lb	58 / 127.9	95 / 209.4		
	CASING	MATERIAL		GALVANIZED MILD STEEL			
		THICKNESS		mm / in	0.8 / 0.031	0.8 / 0.031	
		FINISHING		EPOXY POLYESTER POWDER			
	SOUND PRESSURE LEVEL		dBA	58			
	PIPE	TYPE		FLARE VALVE / AEROQUIP			
		SIZE		LIQUID	mm / in	9.52 / 3/8	9.52 / 3/8
	PACKING DIMENSION	GAS		mm / in	15.88 / 5/8	15.88 / 5/8	
		HEIGHT		mm / in	710 / 28.0	1000 / 39.37	
		WIDTH		mm / in	957 / 37.7	1200 / 47.24	
		DEPTH		mm / in	461 / 18.1	560 / 22.05	
	REFRIGERANT CHARGE		kg / lb	1.7 / 3.6			

Abbreviation

INT. O.L.P - Internal Overload Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING CAPACITY IS BASED ON THE CONDITIONS BELOW :

a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

R407C Models (Heatpump)

MODEL		INDOOR UNIT		MWM 007FR	MWM 010FR	MWM 015FR	MWM 020FR	
		OUTDOOR UNIT		M4LC 007BR	M4LC 010BR	M4LC 015BR	M4LC 020BR	
NOMINAL COOLING CAPACITY			W	2227	2637	3223	5129	
			Btu/h	7600	9000	11000	17500	
NOMINAL HEATING CAPACITY			W	2169	2784	3663	5569	
			Btu/h	7400	9500	12500	19000	
INPUT POWER 1Ø < 3Ø >		COOLING	W	795	986	1438	2188 < 2079 >	
		HEATING	W	749	836	1288	2282 < 2089 >	
RUNNING CURRENT 1Ø < 3Ø >		COOLING	A	3.41	4.38	6.59	10.28 < 3.9 >	
		HEATING	A	3.21	3.68	6.09	10.88 < 3.9 >	
INDOOR UNIT	POWER SOURCE		V / Ph / Hz		240 / 1 / 50			
	REFRIGERANT / CONTROL		R407C / OUTDOOR CAPILLARY TUBE					
	FAN	AIR FLOW		L/s / cfm	142 / 300			480 / 227
		FAN MOTOR		4 POLES x 10 W		4 POLES x 10 W	4 POLES x 12 W	4 POLES x 20 W
		RATED INPUT POWER		W	25	25	26	53
		RATED RUNNING CURRENT		A	0.11	0.11	0.11	0.23
		FAN MOTOR PROTECTION		THERMAL OVERLOAD RELAY				
	COIL	MATERIAL		SEAMLESS COPPER (INNER GROOVED)				
		DIAMETER		mm / in	7.0 / 0.276			
		THICKNESS		mm / in	0.28 / 0.011			
		MATERIAL		ALUMINIUM (HYDROPHILIC SLIT FIN)				
		THICKNESS		mm / in	0.11 / 0.0043			
		ROW		2				
		FIN PER INCH		18				
		FACE AREA		m ² / ft ²	0.198 / 2.131			0.254 / 2.733
	DIMENSION		HEIGHT	mm / in	290 / 11.4			306 / 12.0
			WIDTH	mm / in	815 / 32.1			1062 / 41.8
			DEPTH	mm / in	179 / 7.0			202 / 8.0
	WEIGHT		kg	9.5 / 20.9			16 / 35.3	
	SOUND PRESSURE LEVEL (H / M / L)		dBA	38 / 32 / 29	38 / 34 / 30	38 / 35 / 31	45 / 42 / 39	
	CONTROL		ROOM TEMPERATURE		THERMOSTAT ELECTRONIC CONTROL			
			AIR DISCHARGE		LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)			
			OPERATION		LCD WIRELESS MICRO COMPUTER REMOTE CONTROL			
	CONDENSATE DRAIN SIZE		mm / in	16 / 0.63			20 / 0.79	
	AIR FILTER		SARANET+IONIZER+DEODORIZER					
	PACKING DIMENSION		HEIGHT	mm / in	371 / 14.6			382 / 15.0
			WIDTH	mm / in	875 / 34.4			1130 / 44.5
			DEPTH	mm / in	269 / 10.6			268 / 10.6
POWER SOURCE			V / Ph / Hz	240 / 1 / 50 / < 415 / 3 / 50 >				
OUTDOOR UNIT	COMPRESSOR TYPE		ROTARY HERMETIC					
	CAPACITOR		µF	25	30	30	30 / < NIL >	
	RATED RUNNING CURRENT (COOLING)		A	3.09	4.00	6.20	9.50 / < 3.6 >	
	RATED RUNNING CURRENT (HEATING)		A	2.89	3.30	5.70	10.10 / < 3.6 >	
	RATED INPUT POWER (COOLING)		W	720	900	1350	2002 / < 1893 >	
	RATED INPUT POWER (HEATING)		W	674	750	1200	2096 / < 1903 >	
	LOCKED ROTOR AMP. 1Ø / < 3Ø >		A	15	20	32	58 / < 21 >	
	PROTECTION DEVICE		EXT. O.L.P EXT. O.L.P EXT. O.L.P INT. O.L.P (EXT. P.P)					
	FAN	FAN TYPE / DRIVE		PROPELLER / DIRECT				
		BLADE MATERIAL		GLASS REINFORCED ACRLY STYRENE RESIN				
		DIAMETER		mm / in	355 / 14			406 / 16
		RATED RUNNING CURRENT		A	0.21		0.28	0.56
		MOTOR OUTPUT		W	20		25	55
	RATED INPUT POWER		W	50		62	133	
	COIL	MATERIAL		INNER GROOVED				
		DIAMETER		mm / in	9.52 / 3/8			
		THICKNESS		mm / in	0.33 / 0.013			
		MATERIAL		ALUMINIUM (CORR.)		ALUMINIUM (SLIT FIN TYPE)		
		THICKNESS		mm / in	0.12 / 0.005			
		ROW		1				
		FIN PER INCH		19				
		FACE AREA		m ² / ft ²	0.32 / 3.50			0.51 / 5.53
	DIMENSION		HEIGHT	mm / in	494 / 19.4			646 / 25.4
			WIDTH	mm / in	740 / 29.1			840 / 33.1
			DEPTH	mm / in	270 / 10.6			330 / 13.0
	WEIGHT		kg / lb	27.5 / 60.6	31 / 68.3	34 / 74.9	57 / 125.7	
	CASING		MATERIAL		GALVANIZED MILD STEEL			
			THICKNESS		0.8 / 0.031			
			FINISHING		EPOXY POLYESTER POWDER			
	SOUND PRESSURE LEVEL		dBA	47	48	49	52	
	PIPE	TYPE		FLARE VALVE / AEROQUIP				
		SIZE		LIQUID	6.35 / 1/4	6.35 / 1/4	6.35 / 1/4	6.35 / 1/4
	PACKING DIMENSION		GAS	mm / in	9.52 / 3/8	9.52 / 3/8	12.70 / 1/2	15.88 / 5/8
			HEIGHT	mm / in	558 / 22.0			710 / 28.0
			WIDTH	mm / in	851 / 33.5			957 / 37.7
			DEPTH	mm / in	401 / 15.8			461 / 18.1
	REFRIGERANT CHARGE		kg / lb	0.73 / 1.6	0.85 / 1.9		1.7 / 3.7	

Abbreviation

INT. O.L.P	- Internal Overload Protector
EXT. O.L.P	- External Overload Protector
EXT. P.P	- External Phase Protector

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94

3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :

a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR

b) HEATING - 21.1°C DB / 15.6°C WB INDOOR AND 8.3°C DB / 6.1°C WB OUTDOOR

R407C Models (Heatpump)

MODEL		INDOOR UNIT		MWM 025FR		MWM 030FR		
		OUTDOOR UNIT		M4LC 025BR		M4LC 030CR		
NOMINAL COOLING CAPACITY			W	6008		8499		
			Btu/h	20500		29000		
NOMINAL HEATING CAPACITY			W	7034		8792		
			Btu/h	24000		30000		
INPUT POWER (COOLING) - 1Ø / < 3Ø >			W	2571 < 2698 >		2767 / < 2737 >		
INPUT POWER (HEATING) - 1Ø / < 3Ø >			W	2549 < 2780 >		2707 / < 2717 >		
RUNNING CURRENT(COOLING) - 1Ø / < 3Ø >			A	12.60 < 5.1 >		13.1 / < 4.8 >		
RUNNING CURRENT (HEATING) - 1Ø / < 3Ø >			A	12.50 < 5.2 >		12.8 / < 4.7 >		
POWER SOURCE			V / Ph / Hz	240 / 1 / 50		220 - 240 / 1 / 50		
REFRIGERANT / CONTROL			R407C / OUTDOOR CAPILLARY TUBE		R407C / OUTDOOR TXV + CAP TUBE			
INDOOR UNIT	FAN	FAN TYPE		ANTI FUNGUS CROSS FLOW FAN				
		AIR FLOW	L/s / cfm	274 / 580		349 / 740		
		FAN MOTOR		4 POLES x 25 W		4 POLES X 45W		
		RATED INPUT POWER		W	57		86	
		RATED RUNNING CURRENT		A	0.24		0.40	
	COIL	TUBE	FAN MOTOR PROTECTION		THERMAL OVERLOAD RELAY			
					SEAMLESS COPPER			
		TUBE PATTERN		INNER GROOVED				
		DIAMETER	mm / in	7.0 / 0.276		9.52 / 0.375		
		THICKNESS	mm / in	0.28 / 0.011		0.33 / 0.013		
		FIN	MATERIAL		ALUMINIUM (HYDROPHILIC SLIT FIN)		ALUMINIUM (HYDROPHILIC SLIT FIN TYPE)	
			THICKNESS	mm / in	0.11 / 0.004		0.11 / 0.0043	
			ROW		2		2	
			FIN PER INCH		18		16	
		FACE AREA		m ² / ft ²	0.254 / 2.733		0.291 / 3.130	
	DIMENSION	HEIGHT	mm / in	306 / 12.0		360 / 14.2		
		WIDTH	mm / in	1062 / 41.8		1200 / 47.2		
		DEPTH	mm / in	202 / 8.0		200 / 7.9		
	WEIGHT		kg / lb	16 / 35.3		17 / 37.5		
	SOUND PRESSURE LEVEL - H / M / L		dBA	47 / 44 / 42		49 / 47 / 45		
	CONTROL	ROOM TEMPERATURE		THERMOSTAT ELECTRONIC CONTROL				
		AIR DISCHARGE		LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT)				
			OPERATION	LCD WIRELESS MICRO COMPUTER REMOTE CONTROL				
	CONDENSATE DRAIN SIZE			mm / in	20 / 0.79		20 / 0.79	
	AIR FILTER			SARANET+IONIZER+DEODORIZER				
	PACKING	DIMENSION	HEIGHT	mm / in	382 / 15.0		420 / 16.5	
WIDTH			mm / in	1130 / 44.5		1267 / 49.9		
DEPTH			mm / in	268 / 10.6		260 / 10.2		
OUTDOOR UNIT	COMPRESSOR	COMPRESSOR TYPE		ROTARY HERMETIC				
		POWER SOURCE		V/Ph/Hz	240 / 1 / 50 / < 415 / 3 / 50 >		220 - 240 / 1 / 50 / < 380 - 415 / 3 / 50 >	
		CAPACITOR - 1Ø / < 3Ø >		µF	30 / < NIL >		50 / < NIL >	
		LOCKED ROTOR AMP. - 1Ø / < 3Ø >		A	12.60 / < 4.8 >		82 / < 40 >	
		RATED RUNNING CURRENT (COOLING) - 1Ø / < 3Ø >		A	12.50 / < 4.9 >		11.6 / < 4.3 >	
		RATED RUNNING CURRENT (HEATING) - 1Ø / < 3Ø >		A	2571 / < 2508 >		11.3 / < 4.2 >	
		INPUT POWER (COOLING) - 1Ø / < 3Ø >		W	2549 / < 2590 >		2440 / < 2410 >	
		INPUT POWER (HEATING) - 1Ø / < 3Ø >		W	58 / < 26 >		2380 / < 2390 >	
		PROTECTION DEVICE			INT. O.L.P (EXT. P.P)		INT. O.L.P / HI-LO PRESSURE SWITCH	
	FAN	POWER SOURCE		V/Ph/Hz	240 / 1 / 50		220 - 240 / 1 / 50	
		FAN TYPE / DRIVE		PROPELLER / DIRECT				
		BLADE MATERIAL		GLASS REINFORCED ACRYL STYRENE RESIN				
		DIAMETER	mm / in	406 / 16		610 / 24		
		RATED RUNNING CURRENT		A	0.56		1.09	
		MOTOR OUTPUT		W	55		145	
		RATED INPUT POWER		W	133		241	
	COIL	TUBE	MATERIAL		SEAMLESS COPPER TUBE			
			TUBE PATTERN		INNER GROOVED		PLAIN	
		DIAMETER	mm / in	9.52 / 3/8				
		THICKNESS	mm / in	0.33 / 0.013				
		FIN	MATERIAL		ALUMINIUM (SLIT FIN TYPE)		ALUMINIUM (CORRUGATED FIN TYPE)	
			THICKNESS	mm / in	0.12 / 0.005		0.12 / 0.005	
			ROW		2		2	
			FIN PER INCH		14		16	
		FACE AREA		m ² / ft ²	0.51 / 5.53		0.87 / 9.33	
		DIMENSION	HEIGHT	mm / in	646 / 25.4		850 / 33.46	
WIDTH	mm / in		840 / 33.1		1030 / 40.55			
DEPTH	mm / in		330 / 13.0		400 / 15.75			
WEIGHT		kg / lb	58 / 127.9		95 / 209.4			
CASING	MATERIAL		GALVANIZED MILD STEEL					
	THICKNESS	mm / in	0.8 / 0.031		0.8 / 0.031			
		FINISHING	EPOXY POLYESTER POWDER					
SOUND PRESSURE LEVEL			dBA	53		58		
PIPE	TYPE		FLARE VALVE / AEROQUIP				FLARE VALVE	
	SIZE	LIQUID	mm / in	9.52 / 3/8		9.52 / 3/8		
		GAS	mm / in	15.88 / 5/8		15.88 / 5/8		
	PACKING	HEIGHT	mm / in	710 / 28.0		1000 / 39.37		
WIDTH		mm / in	957 / 37.7		1200 / 47.24			
DEPTH		mm / in	461 / 18.1		560 / 22.05			
REFRIGERANT CHARGE			kg / lb	1.7 / 3.7		2.3 / 5.1		

Abbreviation

INT. O.L.P - Internal Overload Protector
EXT. P.P - External Phase Protector

- 1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
- 2) ALL UNITS ARE BEING TESTED AND COMPLY TO ARI 210/240-94
- 3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
 - a) COOLING - 26.7°C DB / 19.4°C WB INDOOR AND 35°C DB OUTDOOR
 - b) HEATING - 21.1°C DB / 15.6°C WB INDOOR AND 8.3°C DB / 6.1°C WB OUTDOOR

Performance Table

Interpolation and Extrapolation method can be used to get the total capacity, TC and sensible capacity, SC at those temperatures which are not stated out in the table.

Example:

Model: MWM 010F / MLC 010C

Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 37°C DB

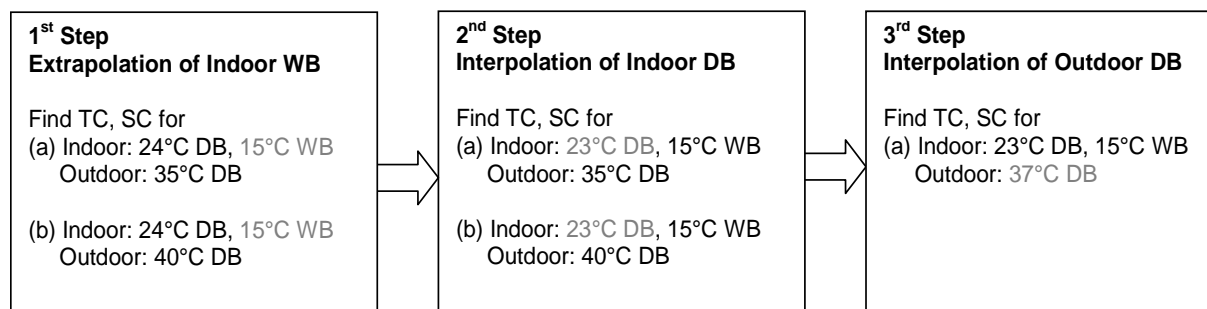
Solution:

Overall

Based on the Performance table on Pg.(15),

1. Refer to the Indoor DB column,
 - **23°C** is located between 20°C and 24°C (Thus, Interpolation need to be applied)
2. Refer to the Indoor WB column,
 - **15°C** only available in the case of Indoor DB = 20°C. (Thus, Extrapolation between 16°C WB and 17°C WB during 24°C indoor DB is required)
3. Refer to the Outdoor DB column,
 - **37°C** is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.



Details:**1st Step:**

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 24°C DB, 15°C WB

Outdoor Condition: 35°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C		
			35	
			TC (kW)	SC (kW)
24	15	-----	x ₁	y ₁
	16		2.582	1.835
	17		2.659	1.739

Total capacity, TC

=> x₁ = 2.506kW (Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)*

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^{\circ}\text{C} - 15^{\circ}\text{C}}{17^{\circ}\text{C} - 16^{\circ}\text{C}} = \frac{1.739\text{kW} - y_1}{1.739\text{kW} - 1.835\text{kW}}$$

$$\Rightarrow y_1 = 1.931\text{kW}$$

(b) Indoor Condition: 24°C DB, 15°C WB

Outdoor Condition: 40°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C		
			40	
			TC (kW)	SC (kW)
24	15	-----	x ₂	y ₂
	16		2.378	1.699
	17		2.444	1.625

Total capacity, TC

=> x₂ = 2.311kW (Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)*

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^{\circ}\text{C} - 15^{\circ}\text{C}}{17^{\circ}\text{C} - 16^{\circ}\text{C}} = \frac{1.625\text{kW} - y_2}{1.625\text{kW} - 1.699\text{kW}}$$

$$\Rightarrow y_2 = 1.773\text{kW}$$

* This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart

2nd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 35°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C		
			35	
			TC (kW)	SC (kW)
			↓	↓
20	15		2.506	1.363
23	15	-----	x ₃	y ₃
24	15		2.506	1.931

Total capacity, TC

⇒ x₃ = 2.506kW (Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)*

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^{\circ}\text{C} - 20^{\circ}\text{C}}{24^{\circ}\text{C} - 23^{\circ}\text{C}} = \frac{1.931\text{kW} - 1.363\text{kW}}{1.931\text{kW} - y_3}$$

$$\Rightarrow y_3 = 1.789\text{kW}$$

(b) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 40°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C		
			40	
			TC (kW)	SC (kW)
			↓	↓
20	15		2.311	1.205
23	15	-----	x ₄	y ₄
24	15		2.311	1.773

Total capacity, TC

⇒ x₄ = 2.311kW (Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)*

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^{\circ}\text{C} - 20^{\circ}\text{C}}{24^{\circ}\text{C} - 23^{\circ}\text{C}} = \frac{1.773\text{kW} - 1.205\text{kW}}{1.773\text{kW} - y_4}$$

$$\Rightarrow y_4 = 1.631\text{kW}$$

* This is due to 2 different conditions with same WB temperature will have the same level of enthalpy. For more details, please refer to psychrometrics chart

3rd Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 23°C DB, 15°C WB

Outdoor Condition: 37°C DB

Indoor DB °C	Indoor WB °C	Outdoor DB, °C						
			35		37		40	
			TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
			↓	↓	↓	↓	↓	↓
23	15	-----	2.506	1.789	x	y	2.311	1.631

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{40^{\circ}\text{C} - 35^{\circ}\text{C}}{40^{\circ}\text{C} - 37^{\circ}\text{C}} = \frac{2.311\text{kW} - 2.506\text{kW}}{2.311\text{kW} - x}$$

$$\Rightarrow x = 2.428\text{kW}$$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{40^{\circ}\text{C} - 35^{\circ}\text{C}}{40^{\circ}\text{C} - 37^{\circ}\text{C}} = \frac{1.631\text{kW} - 1.789\text{kW}}{1.631\text{kW} - y}$$

$$\Rightarrow y = 1.726\text{kW}$$

R22 Models (Cooling Only)

Model : MWM 010F / MLC 010C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	3.090	1.839	2.895	1.680	2.700	1.522	2.506	1.363	2.311	1.205	2.078	1.015
	16	3.197	1.675	2.992	1.539	2.787	1.403	2.582	1.267	2.378	1.131	2.132	0.968
24	16	3.197	2.243	2.992	2.107	2.787	1.971	2.582	1.835	2.378	1.699	2.132	1.536
	17	3.304	2.079	3.089	1.966	2.874	1.852	2.659	1.739	2.444	1.625	2.186	1.489
	18	3.412	1.915	3.186	1.824	2.961	1.733	2.736	1.642	2.510	1.551	2.240	1.442
	19	3.519	1.751	3.284	1.682	3.048	1.614	2.812	1.545	2.577	1.477	2.294	1.395
	20	3.627	1.586	3.387	1.534	3.146	1.481	2.905	1.429	2.665	1.376	2.376	1.313
28	18	3.412	2.483	3.186	2.392	2.961	2.301	2.736	2.210	2.510	2.119	2.240	2.010
	19	3.519	2.319	3.284	2.251	3.048	2.182	2.812	2.114	2.577	2.045	2.294	1.963
	20	3.627	2.154	3.387	2.102	3.146	2.050	2.905	1.997	2.665	1.945	2.376	1.882
	21	3.736	1.989	3.494	1.948	3.251	1.907	3.009	1.867	2.767	1.826	2.476	1.777
	22	3.844	1.824	3.601	1.795	3.357	1.765	3.113	1.736	2.869	1.707	2.577	1.672
	23	3.953	1.658	3.708	1.641	3.462	1.623	3.217	1.606	2.971	1.588	2.677	1.567
30	24	4.061	1.493	3.814	1.487	3.568	1.481	3.321	1.476	3.074	1.470	2.778	1.463
	20	3.627	2.439	3.387	2.386	3.146	2.334	2.905	2.281	2.665	2.229	2.376	2.166
	21	3.736	2.273	3.494	2.232	3.251	2.192	3.009	2.151	2.767	2.110	2.476	2.061
	22	3.844	2.108	3.601	2.079	3.357	2.050	3.113	2.020	2.869	1.991	2.577	1.956
	23	3.953	1.943	3.708	1.925	3.462	1.908	3.217	1.890	2.971	1.873	2.677	1.852
	24	4.061	1.777	3.814	1.771	3.568	1.766	3.321	1.760	3.074	1.754	2.778	1.747

Model : MWM 015F / MLC 015C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	3.527	2.140	3.351	2.009	3.175	1.878	3.000	1.747	2.824	1.616	2.613	1.459
	16	3.661	1.954	3.480	1.845	3.298	1.735	3.117	1.626	2.936	1.516	2.719	1.385
24	16	3.661	2.526	3.480	2.417	3.298	2.307	3.117	2.198	2.936	2.088	2.719	1.957
	17	3.795	2.340	3.608	2.252	3.422	2.164	3.235	2.077	3.048	1.989	2.824	1.883
	18	3.929	2.154	3.737	2.088	3.545	2.022	3.352	1.955	3.160	1.889	2.930	1.810
	19	4.063	1.968	3.865	1.924	3.668	1.879	3.470	1.834	3.272	1.790	3.035	1.736
	20	4.197	1.781	3.990	1.751	3.784	1.721	3.578	1.691	3.372	1.661	3.124	1.625
28	18	3.929	2.726	3.737	2.660	3.545	2.593	3.352	2.527	3.160	2.461	2.930	2.381
	19	4.063	2.540	3.865	2.495	3.668	2.451	3.470	2.406	3.272	2.361	3.035	2.308
	20	4.197	2.353	3.990	2.323	3.784	2.293	3.578	2.263	3.372	2.233	3.124	2.197
	21	4.330	2.166	4.113	2.146	3.896	2.125	3.679	2.105	3.462	2.085	3.202	2.061
	22	4.463	1.978	4.236	1.968	4.008	1.958	3.781	1.948	3.553	1.938	3.280	1.925
	23	4.597	1.791	4.359	1.791	4.120	1.790	3.882	1.790	3.644	1.790	3.358	1.790
30	24	4.730	1.603	4.481	1.613	4.232	1.623	3.984	1.633	3.735	1.642	3.436	1.654
	20	4.197	2.639	3.990	2.609	3.784	2.579	3.578	2.549	3.372	2.519	3.124	2.483
	21	4.330	2.451	4.113	2.431	3.896	2.411	3.679	2.391	3.462	2.371	3.202	2.347
	22	4.463	2.264	4.236	2.254	4.008	2.244	3.781	2.234	3.553	2.223	3.280	2.211
	23	4.597	2.077	4.359	2.076	4.120	2.076	3.882	2.076	3.644	2.076	3.358	2.076
	24	4.730	1.889	4.481	1.899	4.232	1.909	3.984	1.918	3.735	1.928	3.436	1.940

R22 Models (Cooling Only)

Model : MWM 020F / MLC 020B

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.371	3.206	5.139	3.040	4.908	2.875	4.676	2.709	4.232	2.307	3.925	2.030	3.777	1.896	3.673	1.802
	16	5.587	2.923	5.351	2.796	5.115	2.669	4.879	2.543	4.416	2.157	4.096	1.890	3.941	1.761	3.833	1.671
24	16	5.587	3.830	5.351	3.704	5.115	3.577	4.879	3.451	4.416	3.065	4.096	2.798	3.941	2.669	3.833	2.579
	17	5.802	3.547	5.562	3.460	5.322	3.372	5.082	3.285	4.599	2.915	4.266	2.659	4.104	2.535	3.992	2.449
	18	6.018	3.264	5.774	3.215	5.529	3.167	5.285	3.118	4.783	2.764	4.436	2.519	4.268	2.401	4.151	2.318
	19	6.234	2.980	5.985	2.971	5.736	2.962	5.487	2.952	4.967	2.614	4.606	2.380	4.432	2.267	4.311	2.188
	20	6.448	2.695	6.183	2.705	5.919	2.716	5.655	2.727	5.118	2.410	4.747	2.190	4.567	2.084	4.442	2.010
28	18	6.018	4.172	5.774	4.123	5.529	4.075	5.285	4.026	4.783	3.672	4.436	3.427	4.268	3.309	4.151	3.226
	19	6.234	3.888	5.985	3.879	5.736	3.870	5.487	3.860	4.967	3.522	4.606	3.288	4.432	3.175	4.311	3.096
	20	6.448	3.603	6.183	3.613	5.919	3.624	5.655	3.634	5.118	3.317	4.747	3.098	4.567	2.992	4.442	2.918
	21	6.661	3.316	6.373	3.333	6.086	3.351	5.798	3.369	5.248	3.077	4.867	2.876	4.683	2.778	4.554	2.710
	22	6.875	3.028	6.563	3.053	6.252	3.079	5.941	3.104	5.377	2.837	4.987	2.653	4.799	2.564	4.667	2.501
	23	7.088	2.741	6.753	2.774	6.419	2.806	6.084	2.838	5.507	2.597	5.108	2.430	4.914	2.349	4.779	2.293
	24	7.301	2.454	6.943	2.494	6.586	2.533	6.228	2.573	5.637	2.357	5.228	2.207	5.030	2.135	4.892	2.084
30	20	6.448	4.057	6.183	4.067	5.919	4.078	5.655	4.088	5.118	3.771	4.747	3.552	4.567	3.446	4.442	3.372
	21	6.661	3.770	6.373	3.787	6.086	3.805	5.798	3.823	5.248	3.531	4.867	3.329	4.683	3.232	4.554	3.164
	22	6.875	3.482	6.563	3.507	6.252	3.533	5.941	3.558	5.377	3.291	4.987	3.107	4.799	3.018	4.667	2.955
	23	7.088	3.195	6.753	3.228	6.419	3.260	6.084	3.292	5.507	3.051	5.108	2.884	4.914	2.803	4.779	2.747
	24	7.301	2.908	6.943	2.948	6.586	2.987	6.228	3.027	5.637	2.811	5.228	2.661	5.030	2.589	4.892	2.538
HIGH AMBIENT																	

Model : MWM 025F / MLC 025B

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.676	3.976	6.374	3.774	6.072	3.573	5.769	3.371	5.592	3.211	5.308	2.955	5.171	2.833	5.077	2.748
	16	7.219	3.720	6.832	3.525	6.444	3.330	6.057	3.134	5.870	2.982	5.572	2.738	5.429	2.620	5.330	2.540
24	16	7.219	4.808	6.832	4.612	6.444	4.417	6.057	4.222	5.870	4.069	5.572	3.825	5.429	3.708	5.330	3.627
	17	7.762	4.552	7.289	4.363	6.817	4.174	6.344	3.985	6.149	3.840	5.836	3.608	5.686	3.496	5.583	3.419
	18	8.304	4.296	7.747	4.113	7.189	3.931	6.632	3.749	6.427	3.611	6.101	3.390	5.944	3.284	5.836	3.211
	19	8.847	4.040	8.204	3.864	7.562	3.688	6.919	3.512	6.706	3.381	6.365	3.172	6.202	3.072	6.089	3.003
	20	9.392	3.784	8.686	3.616	7.979	3.448	7.273	3.280	7.049	3.156	6.690	2.959	6.519	2.864	6.400	2.798
28	18	8.304	5.383	7.747	5.201	7.189	5.019	6.632	4.837	6.427	4.698	6.101	4.478	5.944	4.372	5.836	4.299
	19	8.847	5.127	8.204	4.951	7.562	4.776	6.919	4.600	6.706	4.469	6.365	4.260	6.202	4.160	6.089	4.090
	20	9.392	4.871	8.686	4.704	7.979	4.536	7.273	4.368	7.049	4.244	6.690	4.046	6.519	3.952	6.400	3.886
	21	9.939	4.616	9.183	4.457	8.427	4.298	7.671	4.139	7.434	4.022	7.056	3.836	6.875	3.746	6.750	3.685
	22	10.486	4.360	9.680	4.210	8.874	4.060	8.068	3.910	7.820	3.800	7.422	3.625	7.232	3.541	7.100	3.483
	23	11.033	4.104	10.178	3.963	9.322	3.822	8.466	3.680	8.205	3.578	7.788	3.414	7.588	3.335	7.450	3.281
	24	11.580	3.849	10.675	3.716	9.769	3.584	8.864	3.451	8.591	3.356	8.154	3.203	7.945	3.130	7.801	3.080
30	20	9.392	5.415	8.686	5.247	7.979	5.080	7.273	4.912	7.049	4.788	6.690	4.590	6.519	4.495	6.400	4.430
	21	9.939	5.160	9.183	5.001	8.427	4.842	7.671	4.683	7.434	4.566	7.056	4.379	6.875	4.290	6.750	4.228
	22	10.486	4.904	9.680	4.754	8.874	4.604	8.068	4.453	7.820	4.344	7.422	4.169	7.232	4.085	7.100	4.027
	23	11.033	4.648	10.178	4.507	9.322	4.366	8.466	4.224	8.205	4.122	7.788	3.958	7.588	3.879	7.450	3.825
	24	11.580	4.392	10.675	4.260	9.769	4.128	8.864	3.995	8.591	3.900	8.154	3.747	7.945	3.674	7.801	3.624
HIGH AMBIENT																	

R22 Models (Cooling Only)

Model : MWM 030F / MLC 030B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	7.743	4.459	7.364	4.208	6.985	3.957	6.606	3.706	6.227	3.454	5.773	3.153
	16	8.254	4.098	7.804	3.892	7.354	3.686	6.903	3.48	6.453	3.273	5.913	3.026
24	16	8.254	5.486	7.804	5.28	7.354	5.074	6.903	4.868	6.453	4.662	5.913	4.415
	17	8.765	5.125	8.244	4.964	7.722	4.803	7.2	4.642	6.679	4.481	6.053	4.287
	18	9.276	4.765	8.683	4.648	8.09	4.532	7.497	4.416	6.904	4.3	6.193	4.16
	19	9.787	4.404	9.123	4.332	8.459	4.261	7.794	4.19	7.13	4.119	6.333	4.033
	20	10.3	4.04	9.582	3.991	8.863	3.942	8.145	3.893	7.426	3.844	6.564	3.785
28	18	9.276	6.153	8.683	6.037	8.09	5.92	7.497	5.804	6.904	5.688	6.193	5.549
	19	9.787	5.792	9.123	5.721	8.459	5.65	7.794	5.578	7.13	5.507	6.333	5.422
	20	10.3	5.428	9.582	5.379	8.863	5.33	8.145	5.281	7.426	5.232	6.564	5.173
	21	10.815	5.063	10.053	5.021	9.292	4.979	8.531	4.937	7.77	4.895	6.856	4.844
	22	11.329	4.698	10.525	4.662	9.721	4.627	8.917	4.592	8.113	4.557	7.148	4.515
	23	11.843	4.332	10.996	4.304	10.15	4.276	9.303	4.247	8.456	4.219	7.439	4.185
	24	12.358	3.967	11.468	3.945	10.578	3.924	9.689	3.903	8.799	3.882	7.731	3.856
30	20	10.3	6.123	9.582	6.074	8.863	6.024	8.145	5.975	7.426	5.926	6.564	5.867
	21	10.815	5.757	10.053	5.715	9.292	5.673	8.531	5.631	7.77	5.589	6.856	5.538
	22	11.329	5.392	10.525	5.357	9.721	5.321	8.917	5.286	8.113	5.251	7.148	5.209
	23	11.843	5.026	10.996	4.998	10.15	4.97	9.303	4.942	8.456	4.913	7.439	4.88
	24	12.358	4.661	11.468	4.64	10.578	4.618	9.689	4.597	8.799	4.576	7.731	4.55

Model : MWM 030F / MLC 030C

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.455	5.195	8.082	4.927	7.708	4.659	7.334	4.392	6.963	4.073	6.616	3.741	6.330	3.482	6.011	3.193
	16	8.904	4.821	8.492	4.593	8.079	4.365	7.666	4.136	7.298	3.830	6.915	3.510	6.616	3.261	6.283	2.984
24	16	8.904	6.167	8.492	5.939	8.079	5.710	7.666	5.482	7.298	5.176	6.915	4.856	6.616	4.607	6.283	4.329
	17	9.353	5.793	8.901	5.604	8.449	5.416	7.997	5.227	7.614	4.932	7.214	4.625	6.902	4.386	6.555	4.120
	18	9.802	5.420	9.311	5.270	8.820	5.121	8.329	4.971	7.929	4.689	7.512	4.395	7.188	4.166	6.826	3.911
	19	10.251	5.047	9.721	4.936	9.190	4.826	8.660	4.716	8.245	4.446	7.811	4.165	7.474	3.945	7.098	3.701
	20	10.700	4.671	10.127	4.580	9.554	4.490	8.982	4.399	8.551	4.144	8.101	3.879	7.752	3.672	7.361	3.441
28	18	9.802	6.766	9.311	6.616	8.820	6.466	8.329	6.317	7.929	6.035	7.512	5.741	7.188	5.511	6.826	5.256
	19	10.251	6.392	9.721	6.282	9.190	6.172	8.660	6.061	8.245	5.792	7.811	5.510	7.474	5.291	7.098	5.047
	20	10.700	6.017	10.127	5.926	9.554	5.835	8.982	5.744	8.551	5.490	8.101	5.224	7.752	5.018	7.361	4.787
	21	11.149	5.639	10.531	5.555	9.914	5.471	9.297	5.386	8.851	5.149	8.386	4.901	8.023	4.709	7.620	4.494
	22	11.597	5.262	10.935	5.184	10.273	5.106	9.612	5.029	9.151	4.808	8.670	4.579	8.295	4.400	7.878	4.200
	23	12.045	4.885	11.339	4.813	10.633	4.742	9.927	4.671	9.451	4.468	8.954	4.256	8.567	4.091	8.136	3.907
	24	12.494	4.507	11.743	4.443	10.992	4.378	10.242	4.313	9.751	4.127	9.238	3.933	8.839	3.782	8.394	3.614
30	20	10.700	6.689	10.127	6.599	9.554	6.508	8.982	6.417	8.551	6.163	8.101	5.897	7.752	5.690	7.361	5.460
	21	11.149	6.312	10.531	6.228	9.914	6.144	9.297	6.059	8.851	5.822	8.386	5.574	8.023	5.381	7.620	5.166
	22	11.597	5.935	10.935	5.857	10.273	5.779	9.612	5.701	9.151	5.481	8.670	5.251	8.295	5.073	7.878	4.873
	23	12.045	5.557	11.339	5.486	10.633	5.415	9.927	5.343	9.451	5.140	8.954	4.929	8.567	4.764	8.136	4.580
	24	12.494	5.180	11.743	5.115	10.992	5.050	10.242	4.986	9.751	4.800	9.238	4.606	8.839	4.455	8.394	4.286
HIGH AMBIENT																	

R22 Models (Heatpump)

Model : MWM 010FR / MLC 010CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	3.165	1.854	2.945	1.677	2.725	1.500	2.505	1.323	2.285	1.147	2.021	0.934
	16	3.260	1.681	3.030	1.533	2.799	1.385	2.569	1.237	2.338	1.088	2.061	0.911
24	16	3.260	2.288	3.030	2.139	2.799	1.991	2.569	1.843	2.338	1.695	2.061	1.517
	17	3.355	2.114	3.114	1.995	2.873	1.876	2.632	1.756	2.391	1.637	2.102	1.494
	18	3.450	1.941	3.199	1.851	2.947	1.760	2.695	1.669	2.444	1.579	2.142	1.470
	19	3.546	1.768	3.283	1.706	3.021	1.644	2.759	1.583	2.497	1.521	2.182	1.446
	20	3.642	1.594	3.377	1.551	3.113	1.507	2.848	1.464	2.584	1.421	2.266	1.369
28	18	3.450	2.548	3.199	2.457	2.947	2.367	2.695	2.276	2.444	2.186	2.142	2.077
	19	3.546	2.375	3.283	2.313	3.021	2.251	2.759	2.189	2.497	2.127	2.182	2.053
	20	3.642	2.201	3.377	2.157	3.113	2.114	2.848	2.071	2.584	2.027	2.266	1.975
	21	3.738	2.026	3.477	1.994	3.216	1.963	2.955	1.931	2.693	1.899	2.380	1.862
	22	3.835	1.851	3.577	1.831	3.319	1.811	3.061	1.791	2.803	1.772	2.493	1.748
	23	3.932	1.675	3.677	1.667	3.422	1.660	3.167	1.652	2.913	1.644	2.607	1.634
30	24	4.029	1.500	3.777	1.504	3.525	1.508	3.274	1.512	3.022	1.516	2.720	1.520
	20	3.642	2.504	3.377	2.461	3.113	2.417	2.848	2.374	2.584	2.331	2.279	2.279
	21	3.738	2.329	3.477	2.297	3.216	2.266	2.955	2.234	2.693	2.203	2.380	2.165
	22	3.835	2.154	3.577	2.134	3.319	2.114	3.061	2.095	2.803	2.075	2.493	2.051
	23	3.932	1.979	3.677	1.971	3.422	1.963	3.167	1.955	2.913	1.947	2.607	1.937
	24	4.029	1.804	3.777	1.808	3.525	1.811	3.274	1.815	3.022	1.819	2.720	1.824

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	1.644	1.644	1.854	1.854	1.924	1.924	2.694	2.694	3.115	3.115	3.325	3.325	3.535	3.535
17	1.623	1.623	1.836	1.836	1.907	1.907	2.724	2.724	3.087	3.087	3.295	3.295	3.503	3.503
19	1.603	1.603	1.818	1.818	1.889	1.889	2.754	2.754	3.059	3.059	3.265	3.265	3.472	3.472
21	1.583	1.583	1.800	1.800	1.872	1.872	2.784	2.784	3.031	3.031	3.236	3.236	3.440	3.440
23	1.574	1.574	1.785	1.785	1.855	1.855	2.703	2.703	3.003	3.003	3.206	3.206	3.409	3.409
25	1.565	1.565	1.769	1.769	1.838	1.838	2.622	2.622	2.976	2.976	3.176	3.176	3.377	3.377
27	1.556	1.556	1.754	1.754	1.820	1.820	2.541	2.541	2.948	2.948	3.147	3.147	3.346	3.346
FROST REGION														

R22 Models (Heatpump)

Model : MWM 015FR / MLC 015CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	3.521	2.168	3.335	2.021	3.149	1.874	2.963	1.727	2.778	1.580	2.555	1.403
	16	3.747	2.074	3.528	1.929	3.308	1.784	3.089	1.638	2.870	1.493	2.607	1.319
24	16	3.747	2.672	3.528	2.527	3.308	2.381	3.089	2.236	2.870	2.091	2.607	1.916
	17	3.973	2.578	3.721	2.435	3.468	2.291	3.215	2.148	2.962	2.004	2.659	1.832
	18	4.199	2.484	3.913	2.343	3.627	2.201	3.341	2.059	3.055	1.917	2.711	1.747
	19	4.426	2.391	4.106	2.251	3.786	2.111	3.467	1.971	3.147	1.831	2.763	1.663
	20	4.653	2.297	4.310	2.157	3.967	2.017	3.624	1.878	3.281	1.738	2.869	1.570
28	18	4.199	3.082	3.913	2.940	3.627	2.798	3.341	2.657	3.055	2.515	2.711	2.345
	19	4.426	2.988	4.106	2.848	3.786	2.708	3.467	2.568	3.147	2.428	2.763	2.261
	20	4.653	2.894	4.310	2.755	3.967	2.615	3.624	2.475	3.281	2.335	2.869	2.168
	21	4.881	2.800	4.522	2.660	4.162	2.519	3.802	2.379	3.443	2.238	3.011	2.070
	22	5.110	2.706	4.733	2.565	4.357	2.424	3.981	2.282	3.604	2.141	3.153	1.972
	23	5.338	2.612	4.945	2.470	4.552	2.328	4.159	2.186	3.766	2.044	3.294	1.873
30	24	5.566	2.518	5.156	2.375	4.747	2.232	4.337	2.090	3.928	1.947	3.436	1.775
	20	4.653	3.193	4.310	3.053	3.967	2.914	3.624	2.774	3.281	2.634	2.869	2.467
	21	4.881	3.099	4.522	2.959	4.162	2.818	3.802	2.678	3.443	2.537	3.011	2.368
	22	5.110	3.005	4.733	2.864	4.357	2.722	3.981	2.581	3.604	2.440	3.153	2.270
	23	5.338	2.911	4.945	2.769	4.552	2.627	4.159	2.485	3.766	2.343	3.294	2.172
	24	5.566	2.817	5.156	2.674	4.747	2.531	4.337	2.388	3.928	2.245	3.436	2.074

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	2.251	2.251	2.537	2.537	2.633	2.633	3.682	3.682	4.254	4.254	4.540	4.540	4.826	4.826
17	2.224	2.224	2.513	2.513	2.609	2.609	3.627	3.627	4.216	4.216	4.499	4.499	4.783	4.783
19	2.196	2.196	2.488	2.488	2.585	2.585	3.572	3.572	4.178	4.178	4.459	4.459	4.740	4.740
21	2.169	2.169	2.464	2.464	2.562	2.562	3.517	3.517	4.140	4.140	4.418	4.418	4.697	4.697
23	2.156	2.156	2.443	2.443	2.538	2.538	3.507	3.507	4.102	4.102	4.378	4.378	4.654	4.654
25	2.144	2.144	2.422	2.422	2.515	2.515	3.497	3.497	4.064	4.064	4.337	4.337	4.611	4.611
27	2.131	2.131	2.401	2.401	2.491	2.491	3.488	3.488	4.026	4.026	4.297	4.297	4.568	4.568
FROST REGION														

R22 Models (Heatpump)

Model : MWM 020FR / MLC 020BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.685	3.279	5.363	3.031	5.042	2.784	4.720	2.536	4.272	2.126	3.962	1.842	3.812	1.705	3.708	1.609
	16	6.068	3.097	5.683	2.853	5.298	2.609	4.913	2.365	4.447	1.971	4.124	1.698	3.968	1.567	3.859	1.475
24	16	6.068	4.162	5.683	3.918	5.298	3.674	4.913	3.430	4.447	3.036	4.124	2.763	3.968	2.632	3.859	2.540
	17	6.451	3.979	6.003	3.739	5.554	3.499	5.106	3.258	4.621	2.881	4.286	2.620	4.124	2.493	4.011	2.405
	18	6.835	3.797	6.323	3.560	5.811	3.324	5.299	3.087	4.796	2.726	4.448	2.476	4.280	2.355	4.162	2.271
	19	7.218	3.614	6.642	3.382	6.067	3.149	5.491	2.916	4.970	2.571	4.610	2.332	4.435	2.217	4.314	2.136
	20	7.604	3.432	6.988	3.206	6.372	2.979	5.757	2.753	5.210	2.423	4.833	2.195	4.650	2.085	4.522	2.008
	18	6.835	4.862	6.323	4.625	5.811	4.389	5.299	4.152	4.796	3.791	4.448	3.541	4.280	3.420	4.162	3.336
28	19	7.218	4.679	6.642	4.447	6.067	4.214	5.491	3.981	4.970	3.636	4.610	3.397	4.435	3.282	4.314	3.201
	20	7.604	4.497	6.988	4.271	6.372	4.044	5.757	3.818	5.210	3.488	4.833	3.260	4.650	3.150	4.522	3.073
	21	7.992	4.315	7.351	4.097	6.711	3.878	6.071	3.660	5.494	3.345	5.096	3.128	4.903	3.022	4.769	2.949
	22	8.379	4.133	7.714	3.923	7.049	3.712	6.384	3.502	5.778	3.202	5.359	2.995	5.157	2.895	5.015	2.825
	23	8.767	3.951	8.078	3.749	7.388	3.546	6.698	3.344	6.062	3.059	5.623	2.862	5.410	2.767	5.262	2.701
	24	9.155	3.770	8.441	3.575	7.726	3.380	7.012	3.185	6.346	2.916	5.886	2.730	5.663	2.639	5.508	2.576
30	20	7.604	5.030	6.988	4.803	6.372	4.577	5.757	4.350	5.210	4.021	4.833	3.793	4.650	3.683	4.522	3.606
	21	7.992	4.848	7.351	4.629	6.711	4.411	6.071	4.192	5.494	3.878	5.096	3.660	4.903	3.555	4.769	3.481
	22	8.379	4.666	7.714	4.455	7.049	4.245	6.384	4.034	5.778	3.735	5.359	3.527	5.157	3.427	5.015	3.357
	23	8.767	4.484	8.078	4.281	7.388	4.079	6.698	3.876	6.062	3.591	5.623	3.395	5.410	3.300	5.262	3.233
	24	9.155	4.302	8.441	4.107	7.726	3.913	7.012	3.718	6.346	3.448	5.886	3.262	5.663	3.172	5.508	3.109
HIGH AMBIENT																	

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.686	3.686	4.112	4.112	4.254	4.254	5.816	5.816	6.668	6.668	7.094	7.094	7.520	7.520
17	3.651	3.651	4.075	4.075	4.216	4.216	5.832	5.832	6.609	6.609	7.031	7.031	7.453	7.453
19	3.616	3.616	4.038	4.038	4.178	4.178	5.847	5.847	6.550	6.550	6.968	6.968	7.386	7.386
21	3.581	3.581	4.000	4.000	4.140	4.140	5.862	5.862	6.490	6.490	6.905	6.905	7.319	7.319
23	3.550	3.550	3.964	3.964	4.102	4.102	5.739	5.739	6.431	6.431	6.841	6.841	7.252	7.252
25	3.519	3.519	3.928	3.928	4.064	4.064	5.617	5.617	6.371	6.371	6.778	6.778	7.185	7.185
27	3.488	3.488	3.891	3.891	4.026	4.026	5.494	5.494	6.312	6.312	6.715	6.715	7.118	7.118
FROST REGION														

R22 Models (Heatpump)

Model : MWM 025FR / MLC 025BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.472	3.547	6.177	3.440	5.882	3.333	5.586	3.226	5.414	3.075	5.139	2.834	5.007	2.718	4.916	2.639
	16	7.321	3.316	6.853	3.195	6.384	3.075	5.915	2.955	5.733	2.812	5.442	2.585	5.302	2.475	5.206	2.400
24	16	7.321	4.314	6.853	4.194	6.384	4.074	5.915	3.954	5.733	3.811	5.442	3.583	5.302	3.474	5.206	3.398
	17	8.170	4.083	7.528	3.949	6.886	3.816	6.244	3.682	6.052	3.548	5.744	3.334	5.597	3.231	5.495	3.160
	18	9.019	3.851	8.204	3.704	7.389	3.558	6.573	3.411	6.371	3.285	6.047	3.084	5.892	2.987	5.785	2.921
	19	9.868	3.619	8.879	3.459	7.891	3.299	6.902	3.140	6.690	3.022	6.350	2.834	6.187	2.744	6.074	2.682
	20	10.724	3.389	9.621	3.229	8.518	3.070	7.415	2.910	7.187	2.800	6.822	2.623	6.646	2.538	6.526	2.480
28	18	9.019	4.849	8.204	4.703	7.389	4.556	6.573	4.410	6.371	4.284	6.047	4.083	5.892	3.986	5.785	3.919
	19	9.868	4.618	8.879	4.458	7.891	4.298	6.902	4.138	6.690	4.021	6.350	3.833	6.187	3.743	6.074	3.681
	20	10.724	4.388	9.621	4.228	8.518	4.068	7.415	3.909	7.187	3.798	6.822	3.622	6.646	3.537	6.526	3.479
	21	11.584	4.158	10.407	4.008	9.229	3.857	8.051	3.707	7.803	3.602	7.407	3.436	7.216	3.356	7.085	3.301
	22	12.445	3.929	11.192	3.788	9.940	3.646	8.687	3.505	8.419	3.407	7.991	3.250	7.786	3.175	7.645	3.123
	23	13.306	3.700	11.978	3.568	10.650	3.435	9.323	3.303	9.035	3.211	8.576	3.064	8.356	2.994	8.204	2.945
	24	14.166	3.471	12.764	3.348	11.361	3.224	9.958	3.101	9.652	3.015	9.161	2.879	8.926	2.813	8.763	2.768
	20	10.724	4.887	9.621	4.727	8.518	4.568	7.415	4.408	7.187	4.297	6.822	4.121	6.646	4.036	6.526	3.978
30	21	11.584	4.658	10.407	4.507	9.229	4.357	8.051	4.206	7.803	4.102	7.407	3.935	7.216	3.855	7.085	3.800
	22	12.445	4.429	11.192	4.287	9.940	4.146	8.687	4.004	8.419	3.906	7.991	3.749	7.786	3.674	7.645	3.622
	23	13.306	4.200	11.978	4.067	10.650	3.935	9.323	3.802	9.035	3.710	8.576	3.564	8.356	3.493	8.204	3.445
	24	14.166	3.971	12.764	3.847	11.361	3.724	9.958	3.600	9.652	3.515	9.161	3.378	8.926	3.312	8.763	3.267
HIGH AMBIENT																	

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.094	4.094	4.581	4.581	4.744	4.744	6.529	6.529	7.502	7.502	7.989	7.989	8.476	8.476
17	4.052	4.052	4.539	4.539	4.701	4.701	6.795	6.795	7.435	7.435	7.918	7.918	8.400	8.400
19	4.010	4.010	4.497	4.497	4.659	4.659	7.061	7.061	7.369	7.369	7.847	7.847	8.325	8.325
21	3.968	3.968	4.454	4.454	4.616	4.616	7.327	7.327	7.302	7.302	7.776	7.776	8.249	8.249
23	3.937	3.937	4.414	4.414	4.573	4.573	6.927	6.927	7.235	7.235	7.704	7.704	8.174	8.174
25	3.906	3.906	4.375	4.375	4.531	4.531	6.527	6.527	7.168	7.168	7.633	7.633	8.098	8.098
27	3.875	3.875	4.335	4.335	4.488	4.488	6.128	6.128	7.101	7.101	7.562	7.562	8.023	8.023
FROST REGION														

R22 Models (Heatpump)

Model : MWM 030FR / MLC 030BR

COOLING MODE

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.004	4.615	7.551	4.231	7.097	3.847	6.644	3.462	6.191	3.078	5.647	2.617
	16	8.235	4.197	7.778	3.872	7.322	3.547	6.866	3.223	6.41	2.898	5.862	2.508
24	16	8.235	5.794	7.778	5.469	7.322	5.144	6.866	4.819	6.41	4.495	5.862	4.105
	17	8.465	5.375	8.006	5.11	7.547	4.845	7.088	4.58	6.629	4.315	6.078	3.996
	18	8.696	4.957	8.234	4.751	7.772	4.546	7.31	4.34	6.848	4.135	6.293	3.888
	19	8.927	4.538	8.462	4.392	7.997	4.246	7.531	4.1	7.066	3.955	6.508	3.779
	20	9.157	4.117	8.686	4.009	8.214	3.901	7.743	3.794	7.271	3.686	6.705	3.556
28	18	8.696	6.553	8.234	6.348	7.772	6.142	7.31	5.937	6.848	5.731	6.293	5.485
	19	8.927	6.135	8.462	5.989	7.997	5.843	7.531	5.697	7.066	5.551	6.508	5.376
	20	9.157	5.714	8.686	5.606	8.214	5.498	7.743	5.39	7.271	5.282	6.705	5.153
	21	9.387	5.291	8.907	5.207	8.427	5.123	7.947	5.039	7.466	4.954	6.89	4.853
	22	9.617	4.868	9.128	4.808	8.639	4.747	8.151	4.687	7.662	4.626	7.075	4.554
	23	9.847	4.445	9.35	4.409	8.852	4.372	8.355	4.335	7.857	4.298	7.26	4.254
	24	10.077	4.023	9.571	4.01	9.065	3.996	8.559	3.983	8.052	3.97	7.445	3.955
30	20	9.157	6.512	8.686	6.404	8.214	6.296	7.743	6.189	7.271	6.081	6.705	5.951
	21	9.387	6.089	8.907	6.005	8.427	5.921	7.947	5.837	7.466	5.753	6.89	5.652
	22	9.617	5.667	9.128	5.606	8.639	5.546	8.151	5.485	7.662	5.425	7.075	5.352
	23	9.847	5.244	9.35	5.207	8.852	5.17	8.355	5.133	7.857	5.097	7.26	5.053
	24	10.077	4.821	9.571	4.808	9.065	4.795	8.559	4.782	8.052	4.769	7.445	4.753

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.711	4.711	5.345	5.345	5.556	5.556	7.882	7.882	9.150	9.150	9.784	9.784	10.419	10.419
17	4.645	4.645	5.291	5.291	5.506	5.506	7.990	7.990	9.069	9.069	9.697	9.697	10.326	10.326
19	4.579	4.579	5.237	5.237	5.457	5.457	8.098	8.098	8.987	8.987	9.610	9.610	10.233	10.233
21	4.513	4.513	5.183	5.183	5.407	5.407	8.206	8.206	8.905	8.905	9.523	9.523	10.140	10.140
23	4.496	4.496	5.142	5.142	5.357	5.357	7.948	7.948	8.824	8.824	9.435	9.435	10.047	10.047
25	4.478	4.478	5.100	5.100	5.307	5.307	7.690	7.690	8.742	8.742	9.348	9.348	9.954	9.954
27	4.460	4.460	5.058	5.058	5.257	5.257	7.431	7.431	8.660	8.660	9.261	9.261	9.861	9.861
FROST REGION														

R22 Models (Heatpump)

Model : MWM 030FR / MLC 030CR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C															
		20		25		30		35		40		46		50		54	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.826	4.927	8.373	4.647	7.920	4.366	7.467	4.085	7.109	3.760	6.735	3.421	6.444	3.157	6.120	2.863
	16	9.257	4.261	8.760	4.094	8.264	3.927	7.768	3.760	7.396	3.451	7.007	3.128	6.704	2.876	6.367	2.596
24	16	9.257	5.868	8.760	5.701	8.264	5.534	7.768	5.367	7.396	5.058	7.007	4.735	6.704	4.484	6.367	4.203
	17	9.687	5.201	9.148	5.148	8.609	5.095	8.070	5.042	7.683	4.748	7.279	4.441	6.964	4.203	6.614	3.937
	18	10.117	4.534	9.535	4.595	8.953	4.656	8.371	4.716	7.969	4.438	7.551	4.148	7.224	3.922	6.861	3.670
	19	10.547	3.867	9.922	4.042	9.297	4.216	8.672	4.391	8.256	4.128	7.822	3.854	7.484	3.641	7.108	3.403
	20	10.978	3.195	10.316	3.437	9.655	3.680	8.993	3.922	8.562	3.682	8.112	3.432	7.761	3.237	7.371	3.019
28	18	10.117	6.142	9.535	6.202	8.953	6.263	8.371	6.324	7.969	6.046	7.551	5.755	7.224	5.529	6.861	5.277
	19	10.547	5.475	9.922	5.649	9.297	5.824	8.672	5.998	8.256	5.736	7.822	5.462	7.484	5.248	7.108	5.011
	20	10.978	4.802	10.316	5.045	9.655	5.287	8.993	5.530	8.562	5.290	8.112	5.039	7.761	4.844	7.371	4.627
	21	11.409	4.126	10.715	4.406	10.021	4.686	9.327	4.966	8.880	4.753	8.413	4.530	8.050	4.357	7.645	4.164
	22	11.840	3.450	11.114	3.767	10.388	4.085	9.662	4.402	9.198	4.216	8.715	4.022	8.339	3.871	7.919	3.702
	23	12.272	2.774	11.513	3.129	10.755	3.483	9.996	3.838	9.517	3.679	9.017	3.513	8.627	3.384	8.193	3.240
	24	12.703	2.098	11.912	2.490	11.121	2.882	10.330	3.274	9.835	3.142	9.318	3.004	8.916	2.897	8.467	2.778
30	20	10.978	5.606	10.316	5.848	9.655	6.091	8.993	6.334	8.562	6.093	8.112	5.843	7.761	5.648	7.371	5.430
	21	11.409	4.930	10.715	5.210	10.021	5.490	9.327	5.770	8.880	5.556	8.413	5.334	8.050	5.161	7.645	4.968
	22	11.840	4.254	11.114	4.571	10.388	4.888	9.662	5.206	9.198	5.020	8.715	4.825	8.339	4.674	7.919	4.506
	23	12.272	3.578	11.513	3.932	10.755	4.287	9.996	4.642	9.517	4.483	9.017	4.317	8.627	4.188	8.193	4.043
	24	12.703	2.902	11.912	3.294	11.121	3.686	10.330	4.078	9.835	3.946	9.318	3.808	8.916	3.701	8.467	3.581
HIGH AMBIENT																	

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	5.513	5.513	6.152	6.152	6.365	6.365	8.709	8.709	9.987	9.987	10.626	10.626	11.265	11.265
17	5.460	5.460	6.096	6.096	6.308	6.308	8.737	8.737	9.898	9.898	10.531	10.531	11.165	11.165
19	5.407	5.407	6.040	6.040	6.251	6.251	8.765	8.765	9.809	9.809	10.437	10.437	11.064	11.064
21	5.355	5.355	5.984	5.984	6.194	6.194	8.792	8.792	9.720	9.720	10.342	10.342	10.964	10.964
23	5.309	5.309	5.930	5.930	6.137	6.137	8.603	8.603	9.631	9.631	10.247	10.247	10.864	10.864
25	5.262	5.262	5.875	5.875	6.080	6.080	8.414	8.414	9.542	9.542	10.152	10.152	10.763	10.763
27	5.216	5.216	5.821	5.821	6.023	6.023	8.225	8.225	9.452	9.452	10.058	10.058	10.663	10.663
FROST REGION														

R407C Models (Cooling Only)

Model : MWM 007F / M4LC 007B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	2.602	1.456	2.406	1.285	2.210	1.114	2.014	0.942	1.818	0.771	1.582	0.565
	16	2.633	1.332	2.438	1.185	2.244	1.037	2.049	0.890	1.854	0.742	1.621	0.565
24	16	2.633	1.914	2.438	1.767	2.244	1.619	2.049	1.472	1.854	1.324	1.621	1.148
	17	2.664	1.790	2.471	1.666	2.277	1.543	2.084	1.419	1.891	1.296	1.659	1.148
	18	2.694	1.665	2.503	1.566	2.311	1.466	2.120	1.367	1.928	1.268	1.698	1.148
	19	2.725	1.541	2.535	1.465	2.345	1.390	2.155	1.314	1.965	1.239	1.737	1.149
	20	2.756	1.415	2.572	1.354	2.388	1.292	2.204	1.231	2.021	1.170	1.800	1.096
28	18	2.694	2.247	2.503	2.148	2.311	2.048	2.120	1.949	1.928	1.850	1.730	1.730
	19	2.725	2.123	2.535	2.047	2.345	1.972	2.155	1.897	1.965	1.821	1.737	1.731
	20	2.756	1.997	2.572	1.936	2.388	1.875	2.204	1.813	2.021	1.752	1.800	1.679
	21	2.788	1.871	2.613	1.817	2.439	1.763	2.264	1.709	2.089	1.656	1.880	1.591
	22	2.819	1.744	2.654	1.698	2.489	1.652	2.323	1.605	2.158	1.559	1.959	1.504
	23	2.851	1.617	2.695	1.579	2.539	1.540	2.383	1.502	2.227	1.463	2.039	1.417
30	24	2.883	1.491	2.736	1.460	2.589	1.429	2.442	1.398	2.295	1.367	2.119	1.329
	20	2.756	2.288	2.572	2.227	2.388	2.166	2.204	2.104	2.043	2.043	1.970	1.970
	21	2.788	2.162	2.613	2.108	2.439	2.054	2.264	2.000	2.089	1.947	1.882	1.882
	22	2.819	2.035	2.654	1.989	2.489	1.943	2.323	1.897	2.158	1.850	1.959	1.795
	23	2.851	1.909	2.695	1.870	2.539	1.831	2.383	1.793	2.227	1.754	2.039	1.708
	24	2.883	1.782	2.736	1.751	2.589	1.720	2.442	1.689	2.295	1.658	2.119	1.620

Model : MWM 010F / M4LC 010B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	2.783	1.488	2.621	1.363	2.460	1.239	2.298	1.114	2.136	0.990	1.941	0.840
	16	2.881	1.304	2.712	1.206	2.544	1.109	2.375	1.012	2.206	0.915	2.004	0.798
24	16	2.881	1.892	2.712	1.795	2.544	1.698	2.375	1.601	2.206	1.503	2.004	1.387
	17	2.978	1.708	2.803	1.638	2.628	1.568	2.452	1.498	2.277	1.428	2.066	1.344
	18	3.076	1.524	2.894	1.481	2.712	1.439	2.530	1.396	2.347	1.353	2.129	1.302
	19	3.173	1.340	2.985	1.325	2.796	1.309	2.607	1.294	2.418	1.278	2.191	1.260
	20	3.271	1.155	3.077	1.159	2.884	1.162	2.690	1.166	2.496	1.170	2.263	1.174
28	18	3.076	2.113	2.894	2.070	2.712	2.027	2.530	1.984	2.347	1.942	2.129	1.891
	19	3.173	1.928	2.985	1.913	2.796	1.898	2.607	1.882	2.418	1.867	2.191	1.848
	20	3.271	1.743	3.077	1.747	2.884	1.751	2.690	1.755	2.496	1.758	2.263	1.763
	21	3.369	1.558	3.172	1.575	2.974	1.593	2.776	1.610	2.579	1.628	2.342	1.649
	22	3.467	1.372	3.266	1.403	3.064	1.435	2.863	1.466	2.662	1.497	2.420	1.535
	23	3.565	1.186	3.360	1.231	3.155	1.277	2.950	1.322	2.745	1.367	2.499	1.421
30	24	3.663	1.001	3.454	1.060	3.245	1.118	3.036	1.177	2.828	1.236	2.577	1.307
	20	3.271	2.038	3.077	2.041	2.884	2.045	2.690	2.049	2.496	2.053	2.263	2.057
	21	3.369	1.852	3.172	1.870	2.974	1.887	2.776	1.905	2.579	1.922	2.342	1.943
	22	3.467	1.666	3.266	1.698	3.064	1.729	2.863	1.760	2.662	1.791	2.420	1.829
	23	3.565	1.481	3.360	1.526	3.155	1.571	2.950	1.616	2.745	1.661	2.499	1.715
	24	3.663	1.295	3.454	1.354	3.245	1.413	3.036	1.471	2.828	1.530	2.577	1.601

R407C Models (Cooling Only)

Model : MWM 015F / M4LC 015B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	3.138	1.749	2.984	1.639	2.831	1.529	2.677	1.420	2.523	1.310	2.339	1.178
	16	3.370	1.645	3.180	1.539	2.991	1.433	2.801	1.327	2.612	1.221	2.384	1.094
24	16	3.370	2.253	3.180	2.147	2.991	2.041	2.801	1.935	2.612	1.829	2.384	1.702
	17	3.602	2.148	3.376	2.047	3.151	1.945	2.926	1.843	2.700	1.741	2.430	1.618
	18	3.834	2.044	3.573	1.946	3.311	1.848	3.050	1.750	2.789	1.652	2.475	1.535
	19	4.066	1.940	3.769	1.846	3.471	1.752	3.174	1.658	2.877	1.564	2.520	1.451
	20	4.299	1.835	3.976	1.743	3.652	1.651	3.329	1.560	3.006	1.468	2.618	1.358
28	18	3.834	2.652	3.573	2.554	3.311	2.456	3.050	2.358	2.789	2.260	2.475	2.143
	19	4.066	2.548	3.769	2.454	3.471	2.360	3.174	2.266	2.877	2.172	2.520	2.059
	20	4.299	2.443	3.976	2.351	3.652	2.260	3.329	2.168	3.006	2.076	2.618	1.966
	21	4.533	2.338	4.190	2.248	3.848	2.157	3.505	2.067	3.162	1.976	2.751	1.867
	22	4.767	2.234	4.405	2.144	4.043	2.055	3.681	1.965	3.318	1.876	2.884	1.768
	23	5.001	2.129	4.619	2.040	4.238	1.952	3.856	1.864	3.475	1.776	3.017	1.670
	24	5.235	2.024	4.834	1.937	4.433	1.850	4.032	1.762	3.631	1.675	3.150	1.571
30	20	4.299	2.747	3.976	2.656	3.652	2.564	3.329	2.472	3.006	2.380	2.618	2.270
	21	4.533	2.642	4.190	2.552	3.848	2.461	3.505	2.371	3.162	2.280	2.751	2.171
	22	4.767	2.538	4.405	2.448	4.043	2.359	3.681	2.269	3.318	2.180	2.884	2.073
	23	5.001	2.433	4.619	2.345	4.238	2.256	3.856	2.168	3.475	2.080	3.017	1.974
	24	5.235	2.328	4.834	2.241	4.433	2.154	4.032	2.067	3.631	1.979	3.150	1.875

Model : MWM 020F / M4LC 020B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.173	3.032	4.950	2.872	4.727	2.713	4.504	2.553	4.281	2.394	4.013	2.202
	16	5.381	2.759	5.154	2.637	4.926	2.515	4.699	2.393	4.472	2.271	4.199	2.125
24	16	5.381	3.667	5.154	3.545	4.926	3.423	4.699	3.301	4.472	3.179	4.199	3.033
	17	5.589	3.394	5.357	3.310	5.126	3.225	4.895	3.141	4.663	3.057	4.386	2.956
	18	5.796	3.121	5.561	3.074	5.325	3.028	5.090	2.981	4.854	2.934	4.572	2.878
	19	6.004	2.848	5.764	2.839	5.525	2.830	5.285	2.821	5.046	2.812	4.758	2.801
	20	6.210	2.573	5.956	2.583	5.701	2.593	5.446	2.603	5.192	2.614	4.886	2.626
28	18	5.796	4.029	5.561	3.982	5.325	3.936	5.090	3.889	4.854	3.842	4.572	3.786
	19	6.004	3.756	5.764	3.747	5.525	3.738	5.285	3.729	5.046	3.720	4.758	3.709
	20	6.210	3.481	5.956	3.491	5.701	3.501	5.446	3.511	5.192	3.522	4.886	3.534
	21	6.416	3.204	6.139	3.221	5.861	3.239	5.584	3.256	5.307	3.273	4.974	3.294
	22	6.621	2.928	6.322	2.952	6.022	2.976	5.722	3.000	5.423	3.024	5.063	3.053
	23	6.827	2.651	6.505	2.682	6.182	2.713	5.860	2.745	5.538	2.776	5.152	2.813
30	24	7.032	2.374	6.688	2.413	6.343	2.451	5.998	2.489	5.654	2.527	5.240	2.573
	20	6.210	3.935	5.956	3.945	5.701	3.955	5.446	3.965	5.192	3.976	4.886	3.988
	21	6.416	3.658	6.139	3.675	5.861	3.693	5.584	3.710	5.307	3.727	4.974	3.748
	22	6.621	3.382	6.322	3.406	6.022	3.430	5.722	3.454	5.423	3.478	5.063	3.507
	23	6.827	3.105	6.505	3.136	6.182	3.167	5.860	3.199	5.538	3.230	5.152	3.267
30	24	7.032	2.828	6.688	2.867	6.343	2.905	5.998	2.943	5.654	2.981	5.240	3.027

R407C Models (Cooling Only)

Model : MWM 025F / M4LC 025B

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.842	3.251	5.577	3.075	5.313	2.898	5.048	2.722	4.784	2.546	4.466	2.334
	16	6.317	3.027	5.978	2.856	5.639	2.686	5.300	2.515	4.961	2.344	4.554	2.139
24	16	6.317	4.115	5.978	3.944	5.639	3.773	5.300	3.603	4.961	3.432	4.554	3.227
	17	6.792	3.891	6.378	3.726	5.965	3.561	5.551	3.396	5.138	3.230	4.642	3.032
	18	7.266	3.667	6.779	3.507	6.291	3.348	5.803	3.188	5.315	3.029	4.729	2.838
	19	7.741	3.443	7.179	3.289	6.617	3.135	6.054	2.981	5.492	2.828	4.817	2.643
	20	8.218	3.219	7.600	3.072	6.982	2.925	6.364	2.778	5.745	2.631	5.003	2.455
28	18	7.266	4.755	6.779	4.595	6.291	4.436	5.803	4.276	5.315	4.117	4.729	3.925
	19	7.741	4.531	7.179	4.377	6.617	4.223	6.054	4.069	5.492	3.915	4.817	3.731
	20	8.218	4.307	7.600	4.160	6.982	4.013	6.364	3.866	5.745	3.719	5.003	3.543
	21	8.697	4.083	8.035	3.944	7.373	3.805	6.712	3.666	6.050	3.526	5.256	3.359
	22	9.176	3.859	8.470	3.728	7.765	3.596	7.060	3.465	6.355	3.334	5.508	3.176
	23	9.654	3.635	8.905	3.512	8.157	3.388	7.408	3.265	6.659	3.141	5.761	2.993
	24	10.133	3.412	9.340	3.296	8.548	3.180	7.756	3.064	6.964	2.948	6.013	2.809
30	20	8.218	4.851	7.600	4.704	6.982	4.557	6.364	4.410	5.745	4.263	5.003	4.087
	21	8.697	4.627	8.035	4.488	7.373	4.349	6.712	4.209	6.050	4.070	5.256	3.903
	22	9.176	4.403	8.470	4.272	7.765	4.140	7.060	4.009	6.355	3.878	5.508	3.720
	23	9.654	4.179	8.905	4.056	8.157	3.932	7.408	3.808	6.659	3.685	5.761	3.537
	24	10.133	3.956	9.340	3.840	8.548	3.724	7.756	3.608	6.964	3.492	6.013	3.353

Model : MWM 030F / M4LC 030C

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.174	4.946	7.812	4.688	7.451	4.429	7.090	4.170	6.729	3.912	6.295	3.601
	16	8.608	4.585	8.209	4.365	7.809	4.144	7.410	3.923	7.011	3.703	6.532	3.438
24	16	8.608	5.931	8.209	5.710	7.809	5.490	7.410	5.269	7.011	5.048	6.532	4.783
	17	9.042	5.570	8.605	5.387	8.168	5.205	7.731	5.022	7.294	4.839	6.769	4.620
	18	9.476	5.209	9.001	5.064	8.526	4.920	8.051	4.775	7.576	4.630	7.006	4.457
	19	9.910	4.848	9.397	4.742	8.884	4.635	8.371	4.528	7.858	4.422	7.243	4.294
	20	10.343	4.485	9.790	4.397	9.236	4.310	8.682	4.222	8.128	4.134	7.464	4.029
28	18	9.476	6.555	9.001	6.410	8.526	6.265	8.051	6.121	7.576	5.976	7.006	5.802
	19	9.910	6.194	9.397	6.087	8.884	5.980	8.371	5.874	7.858	5.767	7.243	5.639
	20	10.343	5.831	9.790	5.743	9.236	5.655	8.682	5.567	8.128	5.480	7.464	5.374
	21	10.777	5.466	10.180	5.384	9.583	5.303	8.987	5.221	8.390	5.140	7.674	5.042
	22	11.210	5.101	10.571	5.026	9.931	4.951	9.291	4.876	8.652	4.800	7.884	4.710
	23	11.644	4.736	10.961	4.667	10.278	4.599	9.596	4.530	8.913	4.461	8.094	4.378
	24	12.077	4.372	11.352	4.309	10.626	4.246	9.900	4.184	9.175	4.121	8.304	4.046
30	20	10.343	6.503	9.790	6.416	9.236	6.328	8.682	6.240	8.128	6.153	7.464	6.047
	21	10.777	6.139	10.180	6.057	9.583	5.976	8.987	5.894	8.390	5.813	7.674	5.715
	22	11.210	5.774	10.571	5.699	9.931	5.624	9.291	5.548	8.652	5.473	7.884	5.383
	23	11.644	5.409	10.961	5.340	10.278	5.271	9.596	5.202	8.913	5.133	8.094	5.051
	24	12.077	5.044	11.352	4.982	10.626	4.919	9.900	4.856	9.175	4.794	8.304	4.718

R407C Models (Heatpump)

Model : MWM 007FR / M4LC 007BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	2.685	1.492	2.486	1.314	2.288	1.137	2.089	0.959	1.890	0.782	1.652	0.568
	16	2.673	1.327	2.489	1.183	2.304	1.039	2.120	0.896	1.936	0.752	1.715	0.580
24	16	2.673	1.939	2.489	1.795	2.304	1.651	2.120	1.508	1.936	1.364	1.715	1.192
	17	2.660	1.773	2.491	1.664	2.321	1.554	2.152	1.444	1.983	1.334	1.779	1.203
	18	2.647	1.608	2.493	1.532	2.338	1.456	2.183	1.381	2.029	1.305	1.843	1.214
	19	2.635	1.442	2.495	1.401	2.355	1.359	2.215	1.317	2.075	1.275	1.907	1.225
	20	2.622	1.275	2.496	1.254	2.369	1.233	2.243	1.212	2.116	1.191	1.964	1.165
28	18	2.647	2.220	2.493	2.144	2.338	2.068	2.183	1.993	2.029	1.917	1.843	1.826
	19	2.635	2.055	2.495	2.013	2.355	1.971	2.215	1.929	2.075	1.887	1.907	1.837
	20	2.622	1.888	2.496	1.866	2.369	1.845	2.243	1.824	2.116	1.803	1.964	1.778
	21	2.609	1.720	2.495	1.710	2.382	1.701	2.268	1.691	2.154	1.682	2.017	1.671
	22	2.596	1.551	2.495	1.554	2.394	1.556	2.293	1.559	2.192	1.561	2.070	1.564
	23	2.584	1.383	2.495	1.398	2.406	1.412	2.318	1.426	2.229	1.441	2.123	1.458
30	24	2.571	1.215	2.495	1.242	2.419	1.268	2.343	1.294	2.267	1.320	2.176	1.351
	20	2.622	2.194	2.496	2.172	2.369	2.151	2.243	2.130	2.116	2.109	2.084	2.084
	21	2.609	2.026	2.495	2.016	2.382	2.007	2.268	1.998	2.154	1.988	2.017	1.977
	22	2.596	1.858	2.495	1.860	2.394	1.862	2.293	1.865	2.192	1.867	2.070	1.870
	23	2.584	1.689	2.495	1.704	2.406	1.718	2.318	1.732	2.229	1.747	2.123	1.764
	24	2.571	1.521	2.495	1.548	2.419	1.574	2.343	1.600	2.267	1.626	2.176	1.657

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	1.222	1.222	1.391	1.391	1.447	1.447	2.066	2.066	2.403	2.403	2.572	2.572	2.740	2.740
17	1.204	1.204	1.377	1.377	1.434	1.434	2.100	2.100	2.382	2.382	2.549	2.549	2.716	2.716
19	1.186	1.186	1.363	1.363	1.421	1.421	2.134	2.134	2.360	2.360	2.526	2.526	2.691	2.691
21	1.168	1.168	1.348	1.348	1.408	1.408	2.169	2.169	2.339	2.339	2.503	2.503	2.667	2.667
23	1.165	1.165	1.338	1.338	1.395	1.395	2.095	2.095	2.317	2.317	2.480	2.480	2.643	2.643
25	1.161	1.161	1.327	1.327	1.382	1.382	2.021	2.021	2.296	2.296	2.457	2.457	2.618	2.618
27	1.158	1.158	1.317	1.317	1.369	1.369	1.947	1.947	2.274	2.274	2.434	2.434	2.594	2.594
	FROST REGION													

R407C Models (Heatpump)

Model : MWM 010FR / M4LC 010BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	2.848	1.622	2.669	1.476	2.490	1.330	2.311	1.184	2.132	1.038	1.918	0.863
	16	2.968	1.494	2.774	1.363	2.580	1.232	2.386	1.101	2.191	0.970	1.958	0.812
24	16	2.968	2.064	2.774	1.933	2.580	1.802	2.386	1.670	2.191	1.539	1.958	1.382
	17	3.088	1.936	2.879	1.820	2.669	1.703	2.460	1.587	2.250	1.471	1.999	1.331
	18	3.208	1.809	2.983	1.707	2.759	1.605	2.534	1.504	2.309	1.402	2.039	1.280
	19	3.328	1.681	3.088	1.594	2.848	1.507	2.608	1.420	2.368	1.333	2.080	1.229
	20	3.449	1.553	3.201	1.477	2.953	1.401	2.705	1.325	2.457	1.249	2.159	1.157
28	18	3.208	2.378	2.983	2.277	2.759	2.175	2.534	2.073	2.309	1.971	2.039	1.849
	19	3.328	2.251	3.088	2.164	2.848	2.077	2.608	1.990	2.368	1.903	2.080	1.799
	20	3.449	2.122	3.201	2.046	2.953	1.970	2.705	1.894	2.457	1.818	2.159	1.727
	21	3.570	1.994	3.319	1.926	3.068	1.858	2.816	1.790	2.565	1.722	2.264	1.641
	22	3.692	1.866	3.437	1.806	3.183	1.746	2.928	1.686	2.673	1.626	2.368	1.555
	23	3.813	1.737	3.555	1.686	3.297	1.634	3.040	1.582	2.782	1.531	2.473	1.469
	24	3.934	1.609	3.673	1.565	3.412	1.522	3.151	1.478	2.890	1.435	2.577	1.383
30	20	3.449	2.407	3.201	2.331	2.953	2.255	2.705	2.179	2.457	2.103	2.159	2.011
	21	3.570	2.279	3.319	2.211	3.068	2.143	2.816	2.075	2.565	2.007	2.264	1.925
	22	3.692	2.150	3.437	2.091	3.183	2.031	2.928	1.971	2.673	1.911	2.368	1.839
	23	3.813	2.022	3.555	1.970	3.297	1.919	3.040	1.867	2.782	1.815	2.473	1.753
	24	3.934	1.894	3.673	1.850	3.412	1.807	3.151	1.763	2.890	1.720	2.577	1.667

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	1.501	1.501	1.675	1.675	1.733	1.733	2.373	2.373	2.721	2.721	2.895	2.895	3.070	3.070
17	1.487	1.487	1.660	1.660	1.718	1.718	2.510	2.510	2.697	2.697	2.870	2.870	3.042	3.042
19	1.472	1.472	1.645	1.645	1.702	1.702	2.647	2.647	2.673	2.673	2.844	2.844	3.015	3.015
21	1.458	1.458	1.629	1.629	1.687	1.687	2.784	2.784	2.648	2.648	2.818	2.818	2.988	2.988
23	1.445	1.445	1.615	1.615	1.671	1.671	2.596	2.596	2.624	2.624	2.792	2.792	2.960	2.960
25	1.433	1.433	1.600	1.600	1.656	1.656	2.408	2.408	2.600	2.600	2.766	2.766	2.933	2.933
27	1.420	1.420	1.585	1.585	1.640	1.640	2.220	2.220	2.575	2.575	2.741	2.741	2.906	2.906
FROST REGION														

R407C Models (Heatpump)

Model : MWM 015FR / M4LC 015BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	3.144	1.817	3.001	1.708	2.858	1.599	2.715	1.490	2.572	1.382	2.400	1.251
	16	3.280	1.656	3.130	1.572	2.980	1.487	2.831	1.403	2.681	1.319	2.501	1.218
24	16	3.280	2.253	3.130	2.169	2.980	2.085	2.831	2.001	2.681	1.916	2.501	1.815
	17	3.416	2.092	3.259	2.033	3.103	1.973	2.946	1.913	2.790	1.853	2.602	1.782
	18	3.552	1.931	3.389	1.896	3.225	1.861	3.062	1.826	2.899	1.790	2.703	1.748
	19	3.688	1.770	3.518	1.760	3.348	1.749	3.178	1.738	3.008	1.727	2.804	1.715
	20	3.823	1.608	3.643	1.609	3.462	1.610	3.281	1.610	3.101	1.611	2.884	1.612
28	18	3.552	2.529	3.389	2.494	3.225	2.458	3.062	2.423	2.899	2.388	2.703	2.346
	19	3.688	2.368	3.518	2.357	3.348	2.346	3.178	2.336	3.008	2.325	2.804	2.312
	20	3.823	2.205	3.643	2.206	3.462	2.207	3.281	2.208	3.101	2.209	2.884	2.210
	21	3.958	2.042	3.764	2.046	3.571	2.050	3.377	2.053	3.183	2.057	2.950	2.062
	22	4.093	1.878	3.886	1.885	3.679	1.892	3.472	1.899	3.265	1.906	3.017	1.914
	23	4.228	1.715	4.008	1.725	3.788	1.734	3.568	1.744	3.348	1.754	3.083	1.766
30	24	4.364	1.551	4.130	1.564	3.897	1.577	3.663	1.590	3.430	1.603	3.150	1.618
	20	3.823	2.504	3.643	2.505	3.462	2.506	3.281	2.507	3.101	2.508	2.884	2.509
	21	3.958	2.341	3.764	2.345	3.571	2.348	3.377	2.352	3.183	2.356	2.950	2.361
	22	4.093	2.177	3.886	2.184	3.679	2.191	3.472	2.198	3.265	2.205	3.017	2.213
	23	4.228	2.013	4.008	2.023	3.788	2.033	3.568	2.043	3.348	2.053	3.083	2.065
30	24	4.364	1.850	4.130	1.863	3.897	1.876	3.663	1.889	3.430	1.902	3.150	1.917

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	1.890	1.890	2.179	2.179	2.275	2.275	3.335	3.335	3.912	3.912	4.201	4.201	4.490	4.490
17	1.856	1.856	2.155	2.155	2.255	2.255	3.444	3.444	3.877	3.877	4.164	4.164	4.450	4.450
19	1.821	1.821	2.131	2.131	2.234	2.234	3.554	3.554	3.843	3.843	4.126	4.126	4.410	4.410
21	1.787	1.787	2.107	2.107	2.214	2.214	3.664	3.664	3.808	3.808	4.089	4.089	4.370	4.370
23	1.788	1.788	2.092	2.092	2.194	2.194	3.487	3.487	3.773	3.773	4.051	4.051	4.330	4.330
25	1.789	1.789	2.077	2.077	2.173	2.173	3.310	3.310	3.738	3.738	4.014	4.014	4.290	4.290
27	1.791	1.791	2.062	2.062	2.153	2.153	3.134	3.134	3.703	3.703	3.977	3.977	4.250	4.250
	FROST REGION													

R407C Models (Heatpump)

Model : MWM 020FR / M4LC 020BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.236	2.879	4.940	2.651	4.644	2.423	4.347	2.195	4.051	1.966	3.696	1.693
	16	5.589	2.711	5.234	2.487	4.880	2.262	4.525	2.037	4.170	1.812	3.745	1.543
24	16	5.589	3.776	5.234	3.552	4.880	3.327	4.525	3.102	4.170	2.877	3.745	2.608
	17	5.942	3.608	5.529	3.387	5.116	3.166	4.703	2.944	4.289	2.723	3.794	2.458
	18	6.295	3.440	5.823	3.222	5.352	3.005	4.880	2.787	4.409	2.569	3.843	2.307
	19	6.648	3.272	6.118	3.058	5.588	2.843	5.058	2.629	4.528	2.415	3.892	2.157
	20	7.003	3.105	6.436	2.896	5.869	2.687	5.302	2.479	4.735	2.270	4.055	2.020
28	18	6.295	4.505	5.823	4.287	5.352	4.070	4.880	3.852	4.409	3.634	3.843	3.372
	19	6.648	4.337	6.118	4.123	5.588	3.908	5.058	3.694	4.528	3.480	3.892	3.222
	20	7.003	4.170	6.436	3.961	5.869	3.752	5.302	3.544	4.735	3.335	4.055	3.085
	21	7.361	4.002	6.771	3.801	6.181	3.599	5.591	3.398	5.002	3.197	4.294	2.955
	22	7.718	3.834	7.105	3.640	6.493	3.446	5.880	3.252	5.268	3.058	4.533	2.826
	23	8.075	3.667	7.440	3.480	6.805	3.294	6.169	3.107	5.534	2.920	4.772	2.696
30	24	8.432	3.499	7.774	3.320	7.116	3.141	6.458	2.961	5.801	2.782	5.011	2.567
	20	7.003	4.702	6.436	4.493	5.869	4.285	5.302	4.076	4.735	3.868	4.055	3.617
	21	7.361	4.534	6.771	4.333	6.181	4.132	5.591	3.931	5.002	3.729	4.294	3.488
	22	7.718	4.367	7.105	4.173	6.493	3.979	5.880	3.785	5.268	3.591	4.533	3.358
	23	8.075	4.199	7.440	4.013	6.805	3.826	6.169	3.639	5.534	3.453	4.772	3.229
	24	8.432	4.032	7.774	3.852	7.116	3.673	6.458	3.494	5.801	3.314	5.011	3.099

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.502	3.502	3.907	3.907	4.042	4.042	5.526	5.526	6.335	6.335	6.740	6.740	7.144	7.144
17	3.469	3.469	3.871	3.871	4.005	4.005	5.540	5.540	6.279	6.279	6.680	6.680	7.081	7.081
19	3.436	3.436	3.836	3.836	3.969	3.969	5.554	5.554	6.222	6.222	6.620	6.620	7.017	7.017
21	3.402	3.402	3.800	3.800	3.933	3.933	5.569	5.569	6.166	6.166	6.559	6.559	6.953	6.953
23	3.373	3.373	3.766	3.766	3.897	3.897	5.452	5.452	6.109	6.109	6.499	6.499	6.890	6.890
25	3.343	3.343	3.731	3.731	3.861	3.861	5.336	5.336	6.052	6.052	6.439	6.439	6.826	6.826
27	3.314	3.314	3.697	3.697	3.824	3.824	5.219	5.219	5.996	5.996	6.379	6.379	6.762	6.762
FROST REGION														

R407C Models (Heatpump)

Model : MWM 025FR / M4LC 025BR

Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	5.528	2.786	5.276	2.695	5.024	2.603	4.772	2.512	4.519	2.421	4.217	2.311
	16	6.253	2.588	5.853	2.486	5.453	2.383	5.053	2.280	4.652	2.177	4.172	2.054
24	16	6.253	3.587	5.853	3.484	5.453	3.381	5.053	3.279	4.652	3.176	4.172	3.053
	17	6.979	3.389	6.430	3.275	5.882	3.161	5.334	3.047	4.785	2.933	4.128	2.796
	18	7.704	3.191	7.007	3.066	6.311	2.940	5.615	2.815	4.918	2.690	4.083	2.540
	19	8.429	2.993	7.584	2.856	6.740	2.720	5.896	2.583	5.051	2.447	4.038	2.283
	20	9.160	2.796	8.218	2.660	7.276	2.524	6.334	2.387	5.392	2.251	4.262	2.087
28	18	7.704	4.190	7.007	4.064	6.311	3.939	5.615	3.814	4.918	3.689	4.083	3.538
	19	8.429	3.992	7.584	3.855	6.740	3.719	5.896	3.582	5.051	3.446	4.038	3.282
	20	9.160	3.795	8.218	3.659	7.276	3.522	6.334	3.386	5.392	3.249	4.262	3.086
	21	9.895	3.599	8.889	3.471	7.883	3.342	6.877	3.213	5.871	3.085	4.664	2.930
	22	10.630	3.404	9.560	3.283	8.490	3.162	7.420	3.041	6.350	2.920	5.066	2.775
	23	11.365	3.208	10.231	3.095	9.097	2.982	7.963	2.868	6.829	2.755	5.468	2.619
	24	12.100	3.012	10.902	2.907	9.704	2.801	8.506	2.696	7.308	2.591	5.870	2.464
30	20	9.160	4.294	8.218	4.158	7.276	4.022	6.334	3.885	5.392	3.749	4.262	3.585
	21	9.895	4.099	8.889	3.970	7.883	3.841	6.877	3.713	5.871	3.584	4.664	3.430
	22	10.630	3.903	9.560	3.782	8.490	3.661	7.420	3.540	6.350	3.419	5.066	3.274
	23	11.365	3.707	10.231	3.594	9.097	3.481	7.963	3.368	6.829	3.255	5.468	3.119
	24	12.100	3.512	10.902	3.406	9.704	3.301	8.506	3.195	7.308	3.090	5.870	2.963

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.931	3.931	4.398	4.398	4.554	4.554	6.268	6.268	7.202	7.202	7.670	7.670	8.137	8.137
17	3.890	3.890	4.357	4.357	4.513	4.513	6.523	6.523	7.138	7.138	7.601	7.601	8.064	8.064
19	3.850	3.850	4.317	4.317	4.472	4.472	6.779	6.779	7.074	7.074	7.533	7.533	7.992	7.992
21	3.810	3.810	4.276	4.276	4.431	4.431	7.034	7.034	7.010	7.010	7.464	7.464	7.919	7.919
23	3.780	3.780	4.238	4.238	4.391	4.391	6.650	6.650	6.945	6.945	7.396	7.396	7.847	7.847
25	3.750	3.750	4.200	4.200	4.350	4.350	6.266	6.266	6.881	6.881	7.328	7.328	7.774	7.774
27	3.720	3.720	4.162	4.162	4.309	4.309	5.882	5.882	6.817	6.817	7.259	7.259	7.702	7.702
FROST REGION														

R407C Models (Heatpump)

Model : MWM 030FR / M4LC 030CR

Cooling Mode

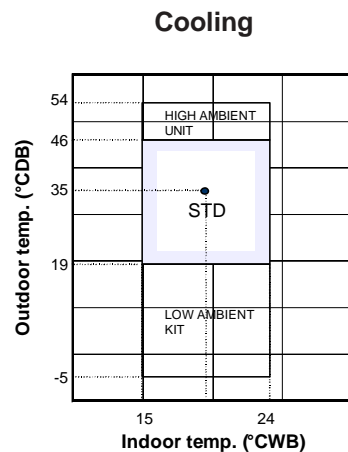
ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	8.532	4.673	8.094	4.402	7.656	4.131	7.218	3.859	6.780	3.588	6.254	3.262
	16	8.948	4.029	8.468	3.867	7.989	3.706	7.509	3.545	7.030	3.384	6.454	3.190
24	16	8.948	5.636	8.468	5.475	7.989	5.314	7.509	5.152	7.030	4.991	6.454	4.797
	17	9.364	4.992	8.843	4.940	8.322	4.889	7.801	4.838	7.279	4.786	6.654	4.725
	18	9.779	4.347	9.217	4.406	8.654	4.464	8.092	4.523	7.529	4.582	6.854	4.652
	19	10.195	3.702	9.591	3.871	8.987	4.040	8.383	4.208	7.779	4.377	7.054	4.580
	20	10.612	3.052	9.972	3.287	9.333	3.521	8.693	3.756	8.054	3.990	7.286	4.271
28	18	9.779	5.954	9.217	6.013	8.654	6.072	8.092	6.130	7.529	6.189	6.854	6.260
	19	10.195	5.310	9.591	5.478	8.987	5.647	8.383	5.816	7.779	5.985	7.054	6.187
	20	10.612	4.660	9.972	4.894	9.333	5.128	8.693	5.363	8.054	5.597	7.286	5.879
	21	11.029	4.006	10.358	4.277	9.687	4.547	9.016	4.818	8.346	5.088	7.541	5.413
	22	11.446	3.353	10.744	3.659	10.042	3.966	9.340	4.273	8.638	4.579	7.795	4.947
	23	11.863	2.699	11.129	3.042	10.396	3.385	9.663	3.727	8.930	4.070	8.050	4.481
30	24	12.280	2.046	11.515	2.424	10.751	2.803	9.986	3.182	9.221	3.561	8.304	4.016
	20	10.612	5.463	9.972	5.698	9.333	5.932	8.693	6.167	8.054	6.401	7.286	6.682
	21	11.029	4.810	10.358	5.080	9.687	5.351	9.016	5.621	8.346	5.892	7.541	6.217
	22	11.446	4.156	10.744	4.463	10.042	4.770	9.340	5.076	8.638	5.383	7.795	5.751
	23	11.863	3.503	11.129	3.846	10.396	4.188	9.663	4.531	8.930	4.874	8.050	5.285
	24	12.280	2.849	11.515	3.228	10.751	3.607	9.986	3.986	9.221	4.365	8.304	4.819

Heating Mode

ID DB°C	Outdoor WB°C													
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	5.513	5.513	6.152	6.152	6.365	6.365	8.709	8.709	9.987	9.987	10.626	10.626	11.265	11.265
17	5.460	5.460	6.096	6.096	6.308	6.308	8.737	8.737	9.898	9.898	10.531	10.531	11.165	11.165
19	5.407	5.407	6.040	6.040	6.251	6.251	8.765	8.765	9.809	9.809	10.437	10.437	11.064	11.064
21	5.355	5.355	5.984	5.984	6.194	6.194	8.792	8.792	9.720	9.720	10.342	10.342	10.964	10.964
23	5.309	5.309	5.930	5.930	6.137	6.137	8.603	8.603	9.631	9.631	10.247	10.247	10.864	10.864
25	5.262	5.262	5.875	5.875	6.080	6.080	8.414	8.414	9.542	9.542	10.152	10.152	10.763	10.763
27	5.216	5.216	5.821	5.821	6.023	6.023	8.225	8.225	9.452	9.452	10.058	10.058	10.663	10.663
	FROST REGION													

Operating Range

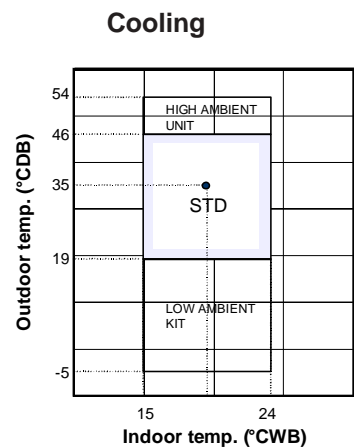
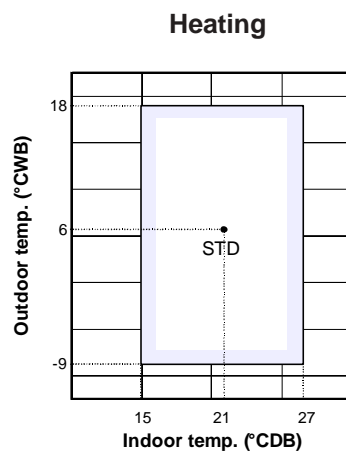
Cooling only



Cautions

The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

Heat pump



Noise Level

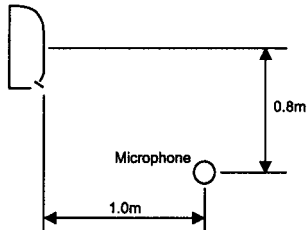
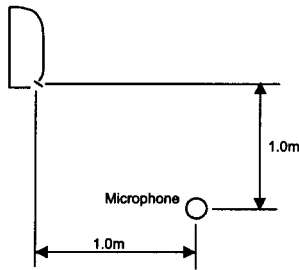
Sound Pressure Level (Measured In Anechoic Room)

Wall Mounted Fan Coil Unit

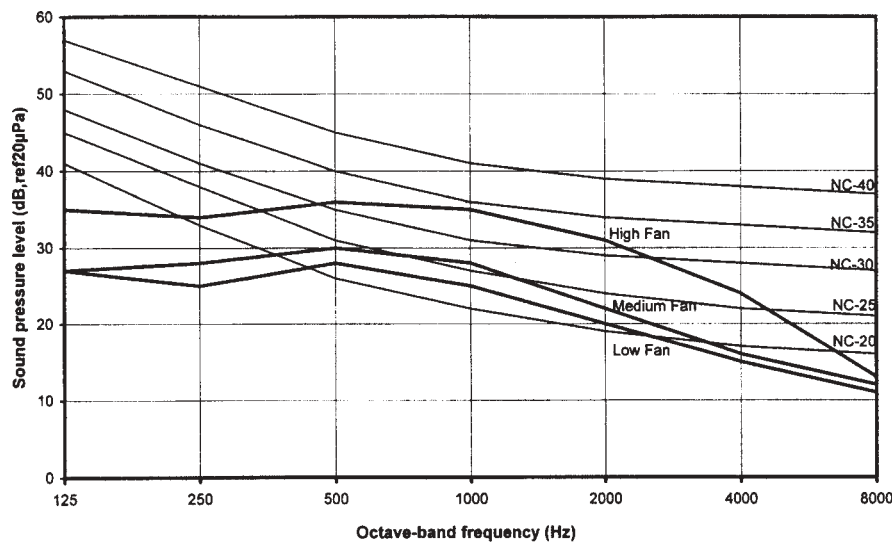
Model	Speed	1/1 Octave A-weighted Sound Pressure (dBA), ref 20μPa							Overall A(dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
MWM 007F/FR	High	35	34	36	35	31	24	13	38	33
	Medium	27	28	30	28	22	16	12	32	27
	Low	27	25	28	25	20	15	11	29	23
MWM 010F/FR	High	35	34	36	35	31	24	13	38	33
	Medium	32	29	32	29	25	18	12	34	28
	Low	28	26	29	26	21	16	12	30	24
MWM 015F/FR	High	35	34	36	35	31	24	13	38	33
	Medium	33	31	33	30	25	17	12	35	29
	Low	31	28	29	27	22	15	11	31	25
MWM 020F/FR	High	39	42	43	40	38	31	19	45	39
	Medium	37	40	40	37	35	28	16	42	36
	Low	34	37	37	34	31	23	14	39	33
MWM 025F/FR	High	41	46	44	42	39	33	22	47	41
	Medium	38	43	42	40	37	29	17	44	39
	Low	36	42	39	36	33	26	14	42	35
MWM 030F MWM 030FR	High	42	46	45	44	41	35	28	49	43
	Medium	40	45	44	43	35	33	27	47	42
	Low	37	43	43	40	35	30	26	45	39

Microphone position - MWM-F/FR - 1m in front of the unit and 0.8m below the vertical centre line of the unit. (JIS C 9612)

- MWM 030F / 030FR - 1m in front and 1m below the air discharge opening of the unit. (JIS B 8615)

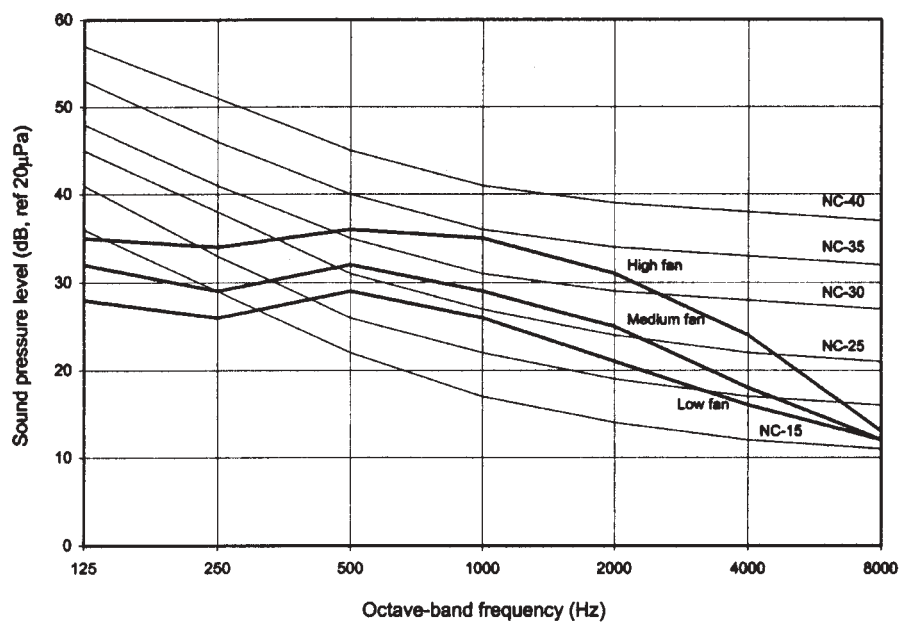
Model	Measuring location
MWM 007F/FR MWM 010F/FR MWM 015F/FR MWM 020F/FR MWM 025F/FR	 <p>Standard : JIS C 9612</p>
MWM 030F / 030FR	

MWM 007F/FR NC Curves



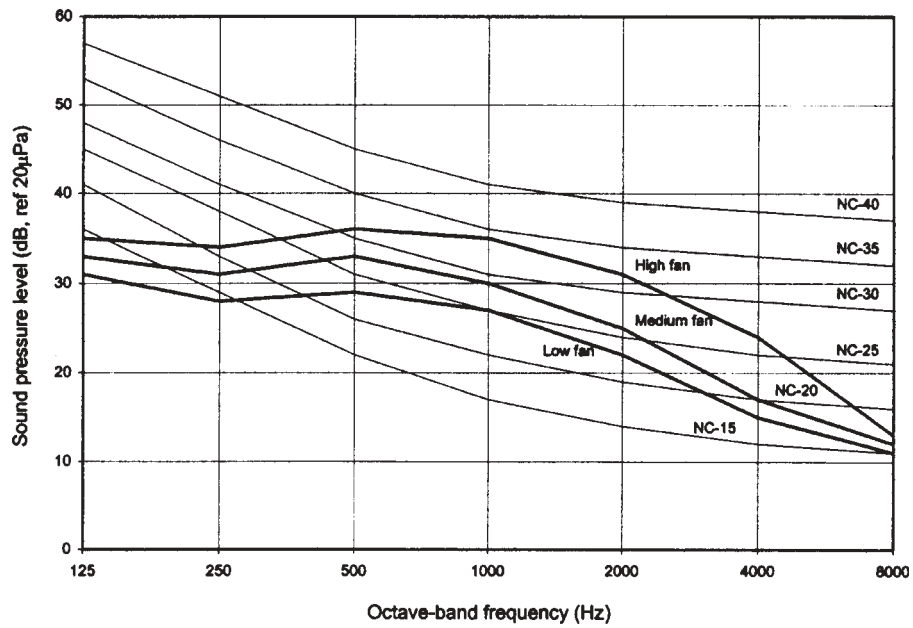
Measured in anechoic room at 1m in front and 0.8m below the vertical centre line of the unit

MWM 010F/FR NC Curves



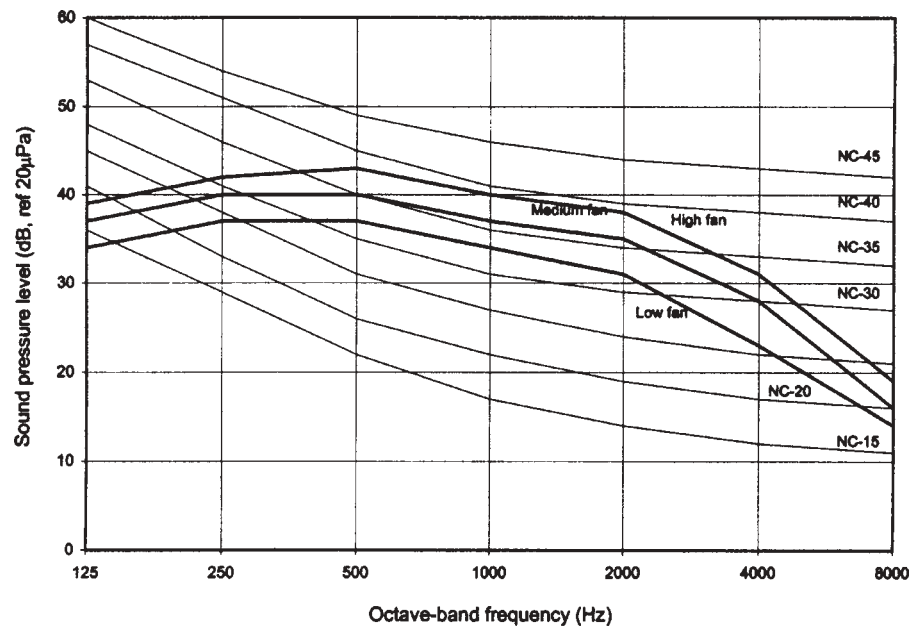
Measured in anechoic room at 1m in front and 0.8m below the vertical centre line of the unit

MWM 015F/FR NC Curves



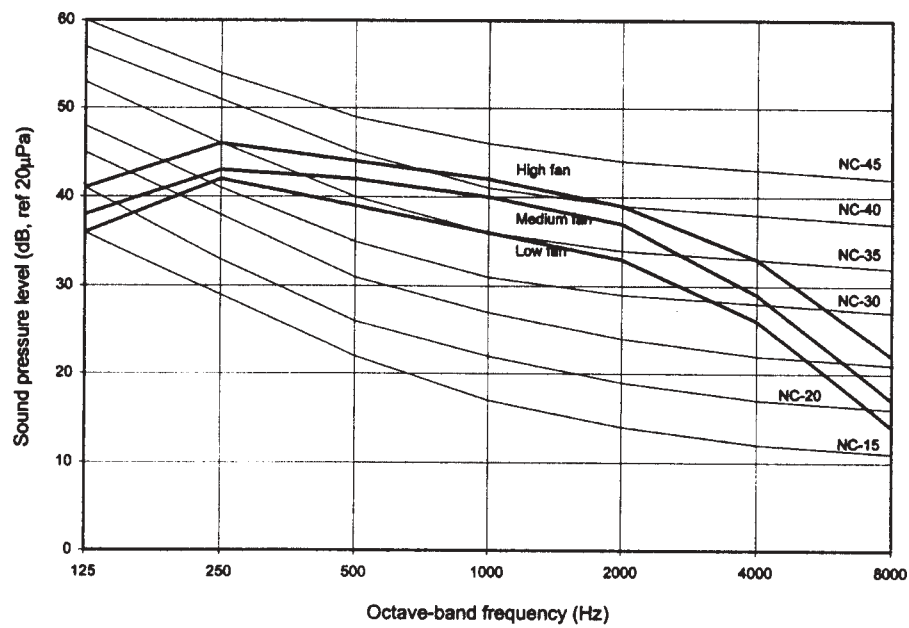
Measured in anechoic room at 1m in front and 0.8m below the vertical centre line of the unit

MWM 020F/FR NC Curves



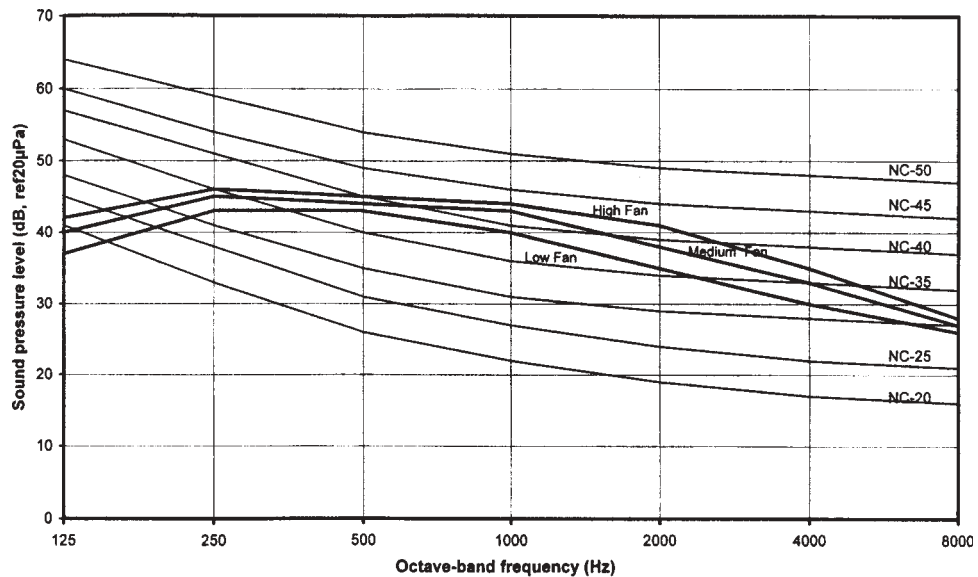
Measured in anechoic room at 1m in front and 0.8m below the vertical centre line of the unit

MWM 025F/FR NC Curves



Measured in anechoic room at 1m in front and 0.8m below the vertical centre line of the unit

MWM 030F / 030FR NC CURVES

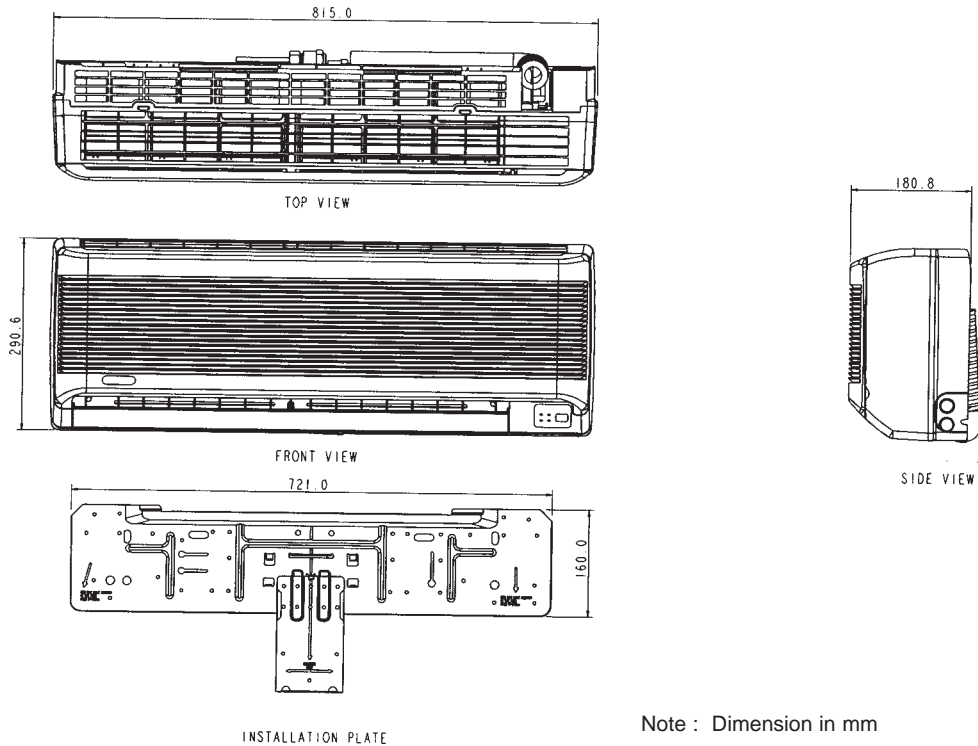


Measured in anechoic room at 1m in front and 1m below the vertical centre line of the unit

Outlines And Dimension

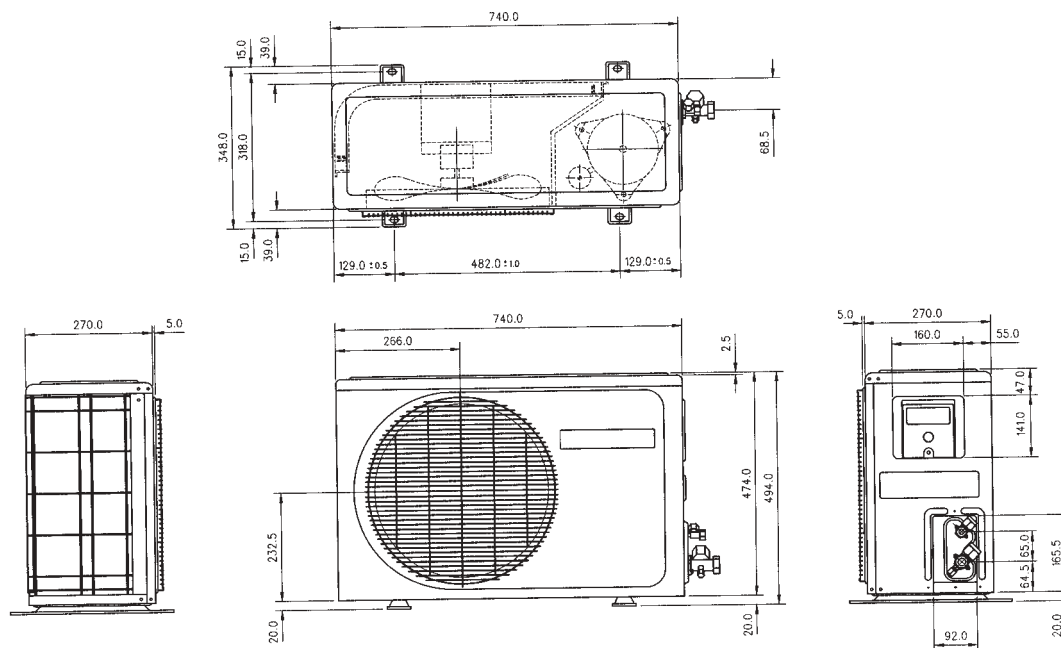
Indoor Unit

Model: MWM 010F / 010FR / 015F / 015FR



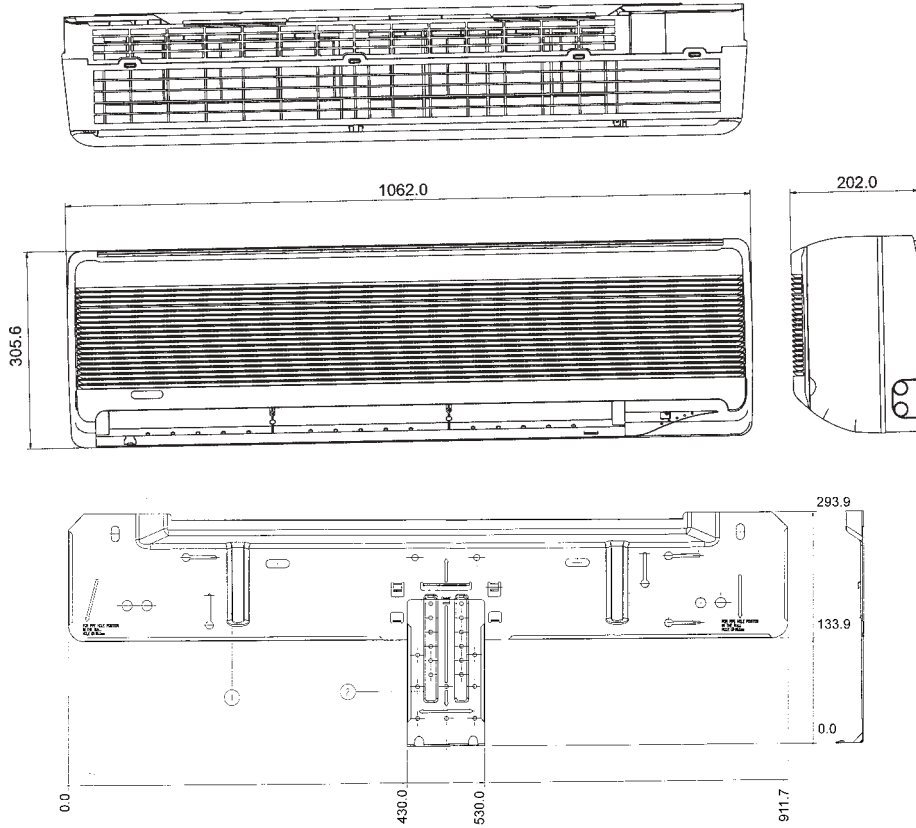
Outdoor Unit

Model: M4LC 007B/ 007BR / 010B / 010BR / 015B / 015BR



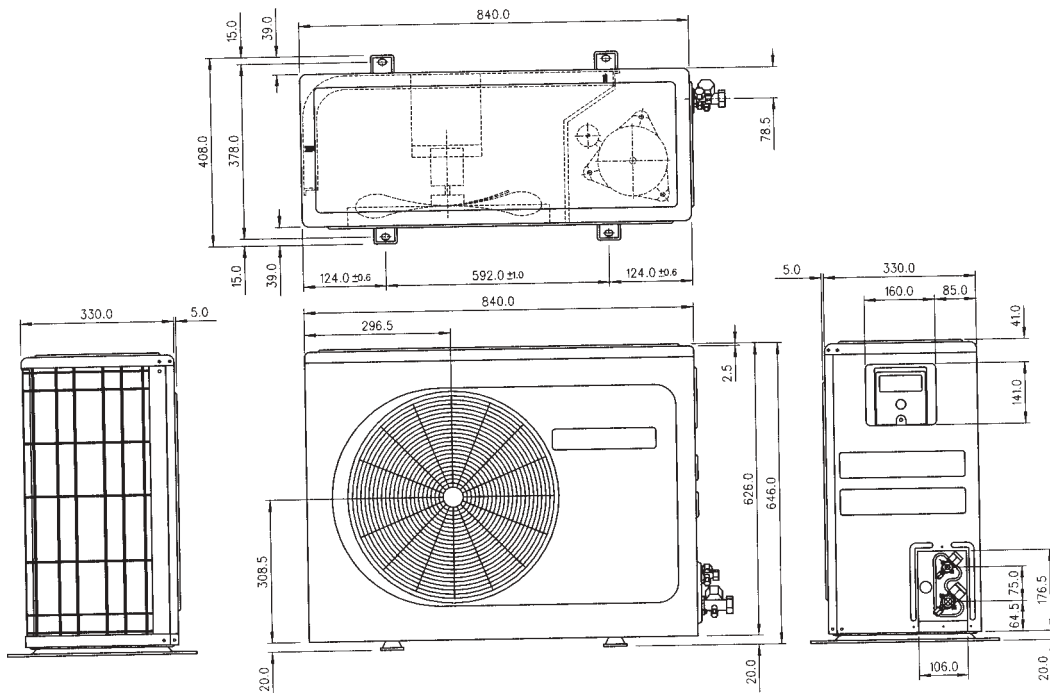
Indoor Unit

MODEL : MWM 020F / 020FR / 025F / 025FR

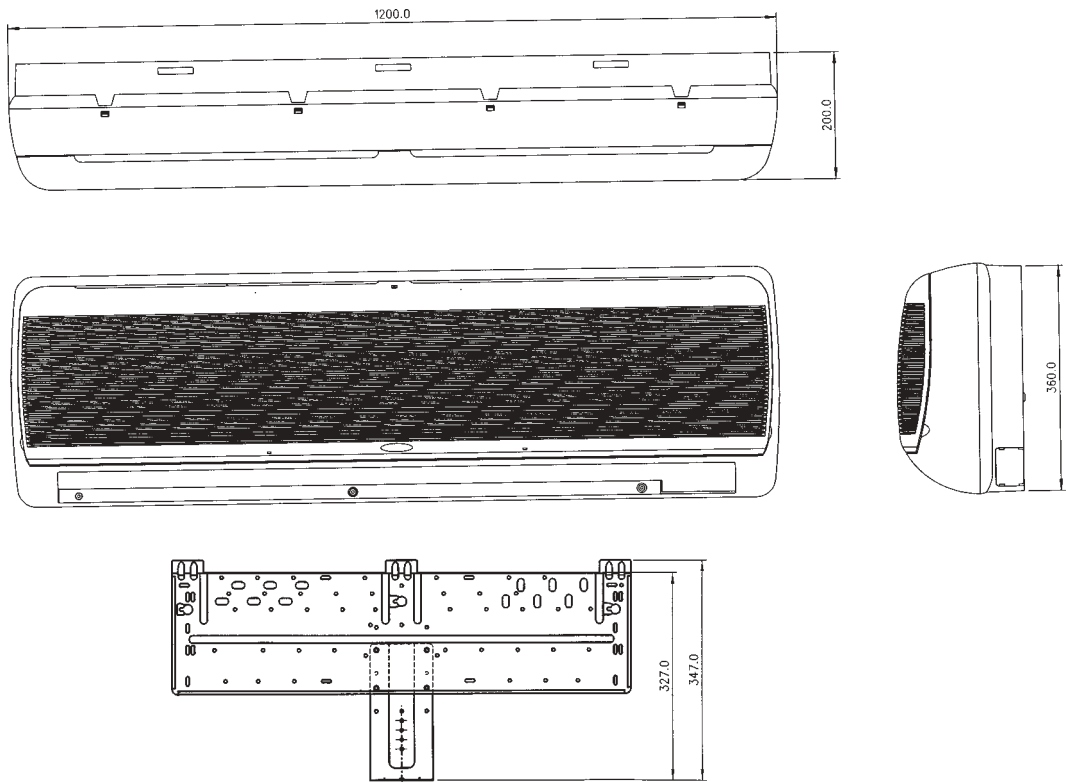


Outdoor Unit

**Model : MLC 020B / 020BR / 025B / 025BR / 030B / 030BR
M4LC 020B / 020BR / 025R / 025BR**

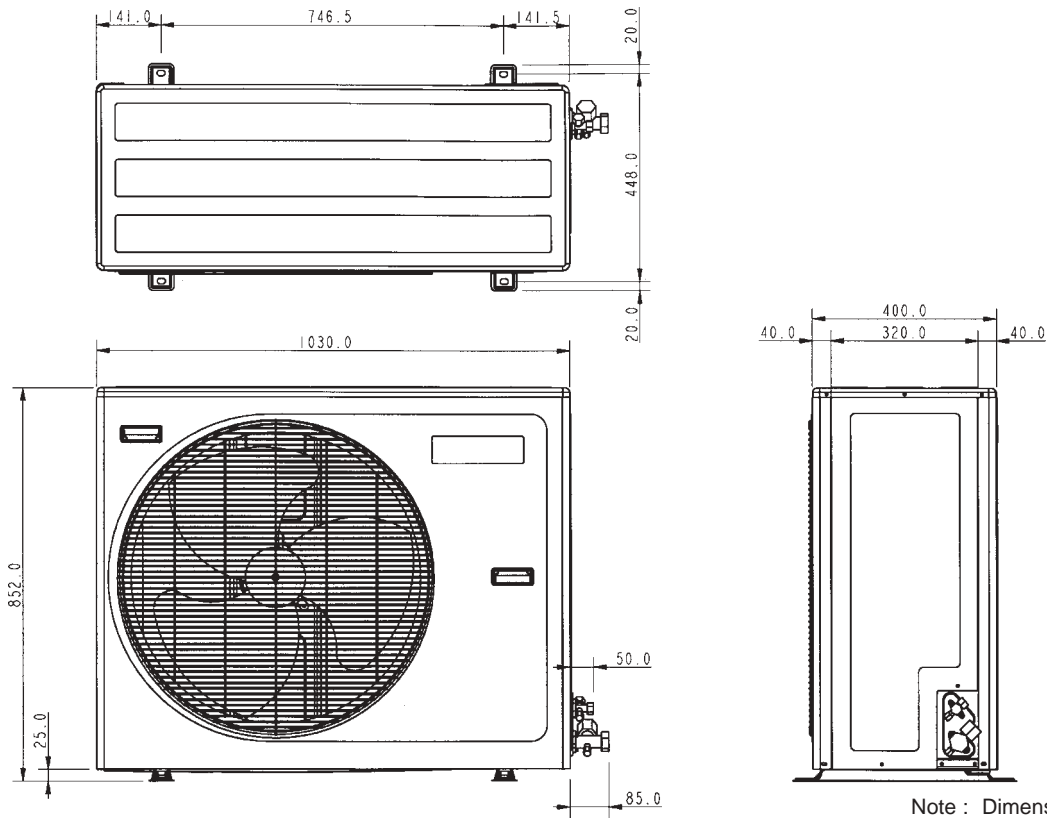


Indoor Unit
Model : MWM 030F / 030FR



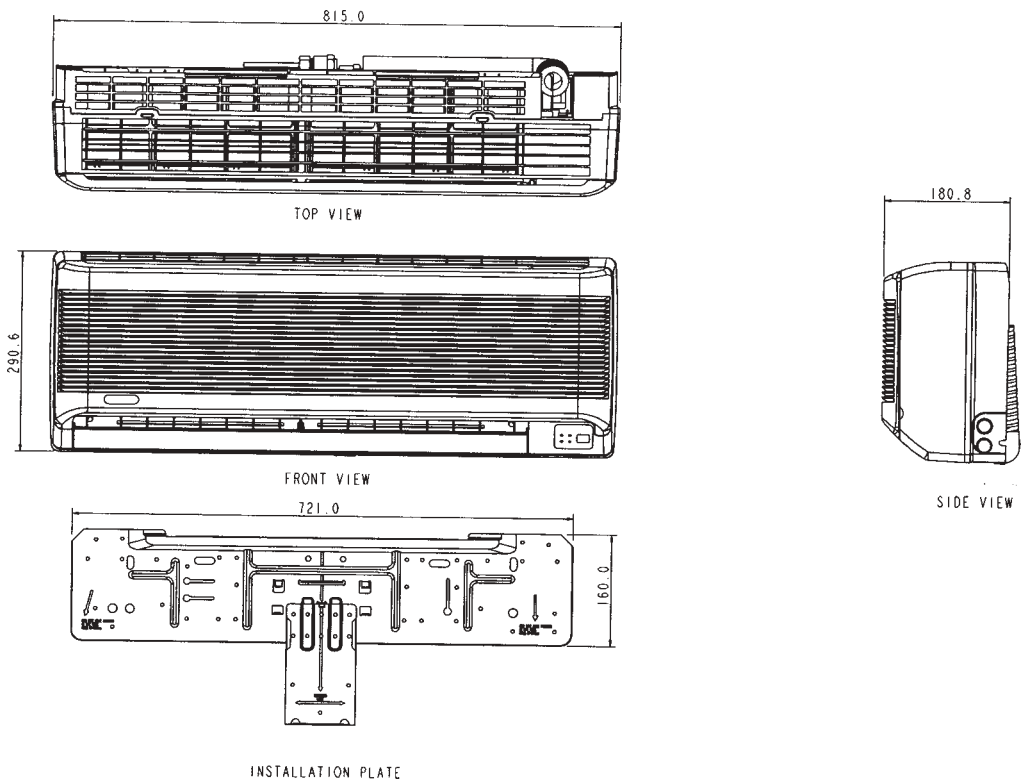
Outdoor Unit
Model : MLC 030C, MLC 030CR
M4LC 030C, M4LC 030CR

Note : Dimension in mm

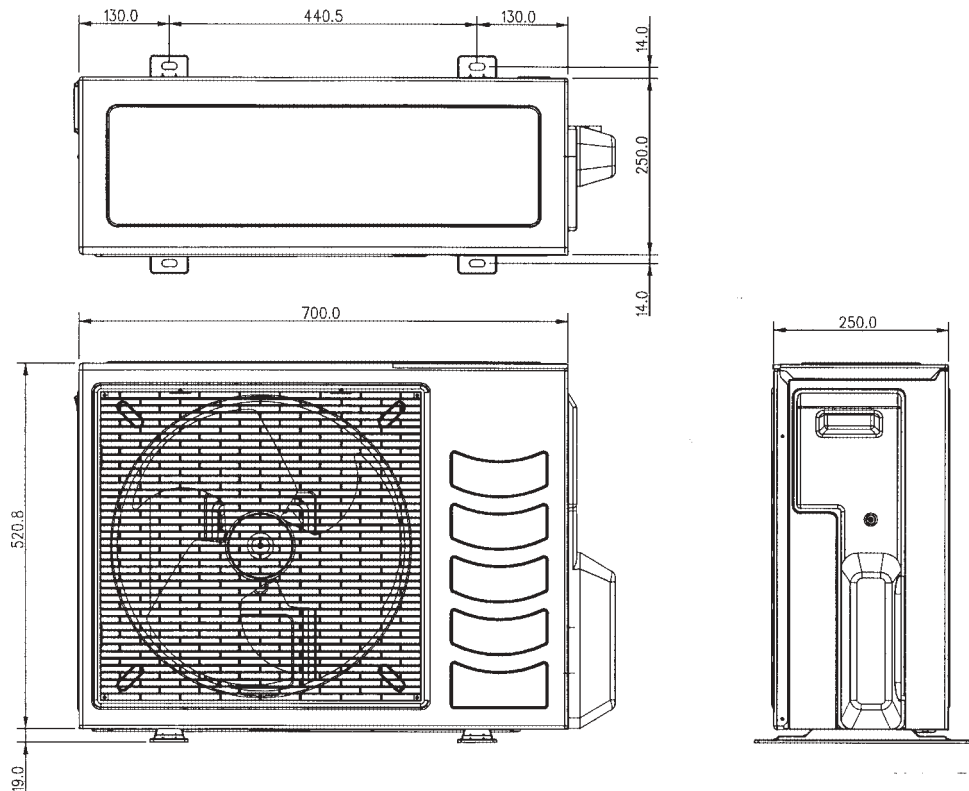


Note : Dimension in mm

Indoor Unit
Model : MWM 010F / 010FR / 015F / 015FR



Outdoor Unit
Model : MLC 010C / 010CR / 015C / 015CR

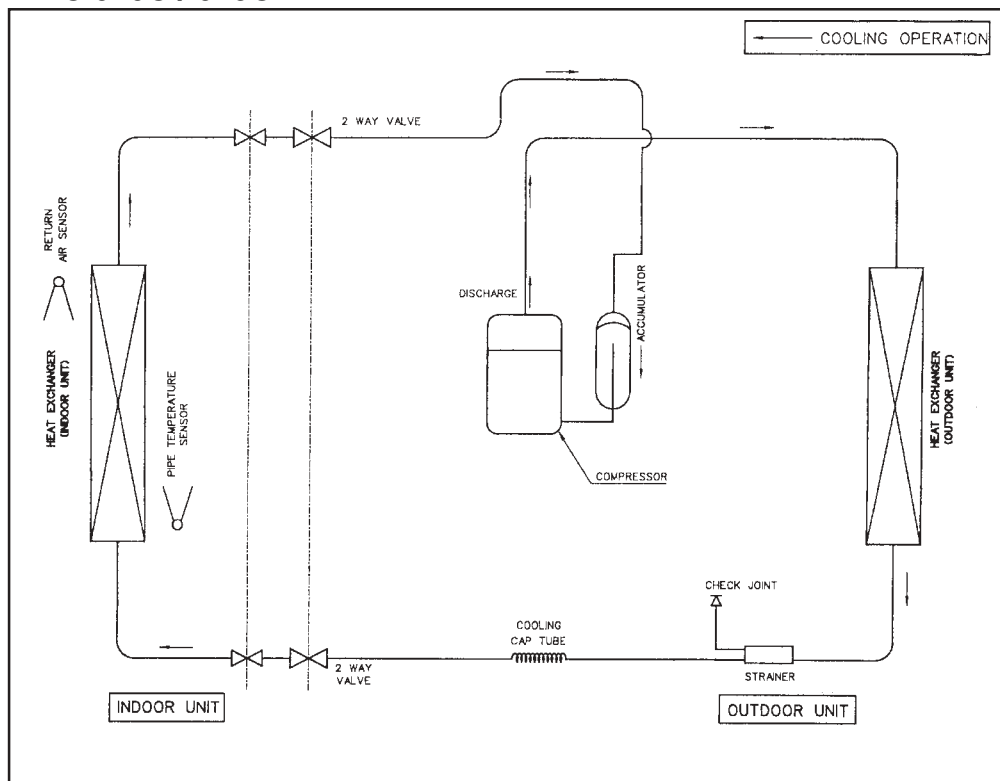


Refrigerant Circuit

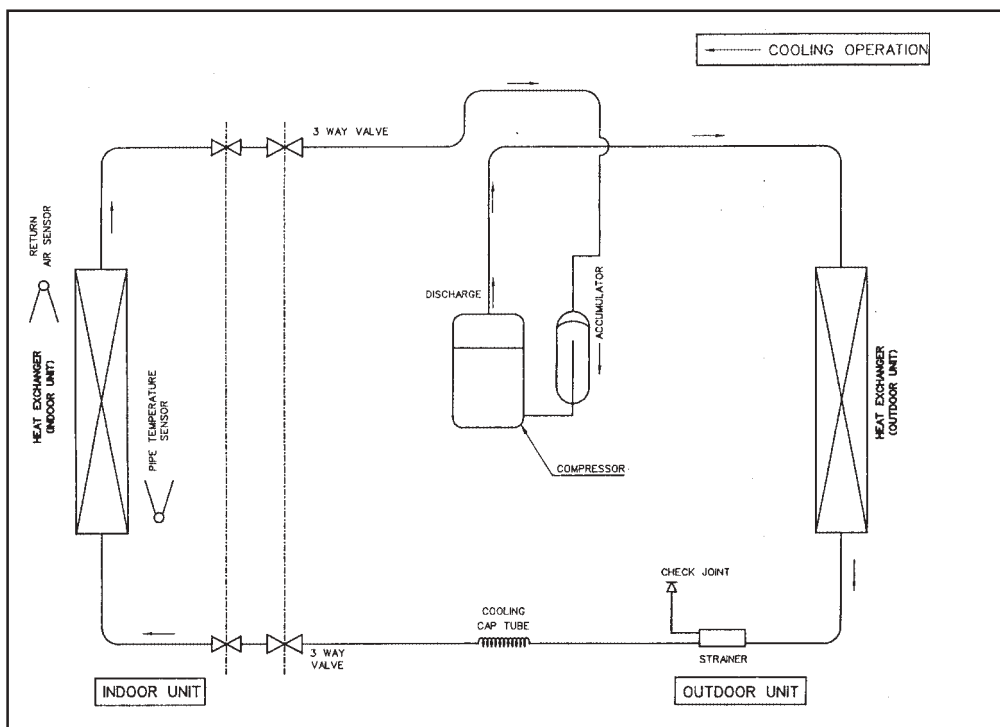
Cooling Only Models

Model : M4LC 007B / 010B / 015B / 020B

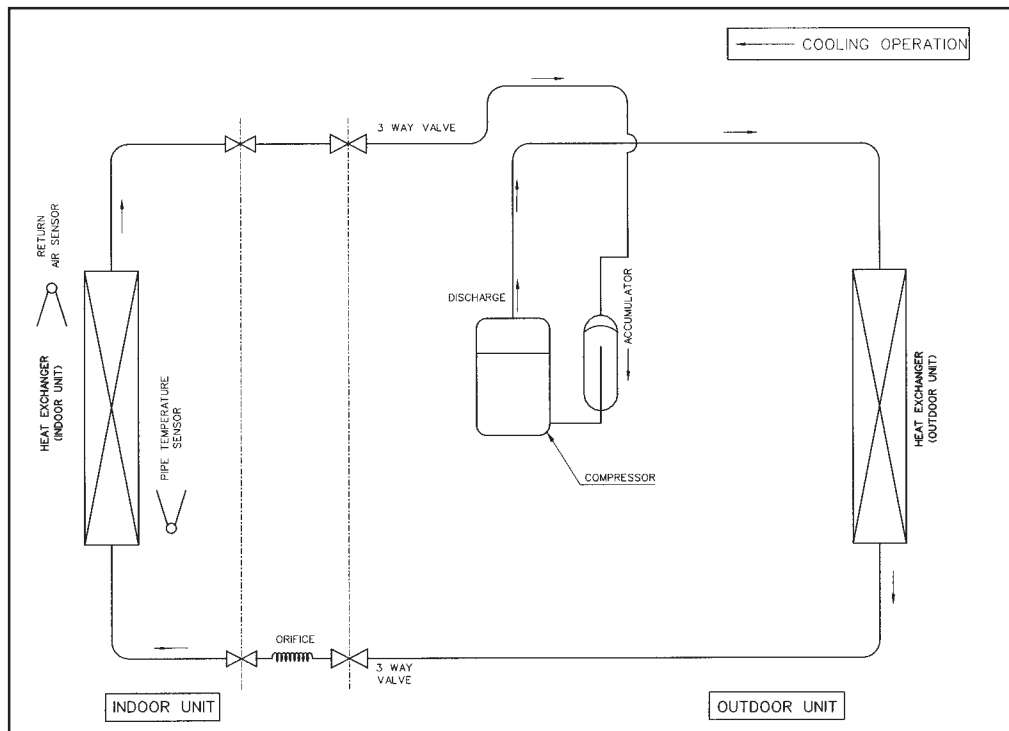
MLC 010C / 015C



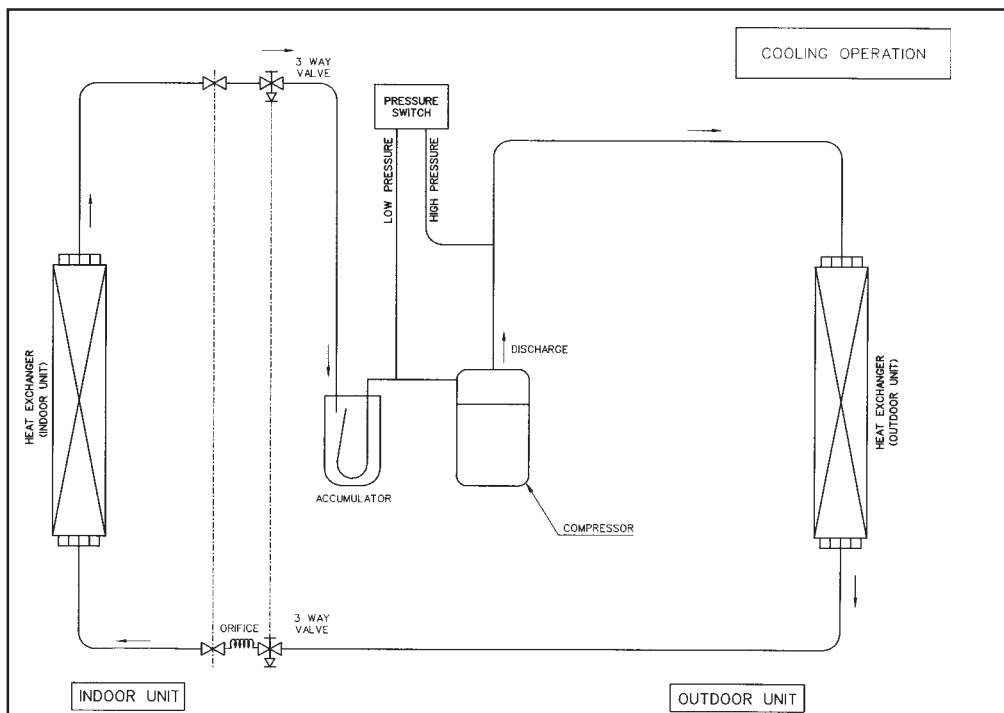
Model : MLC / M4LC 025B , MLC 030B



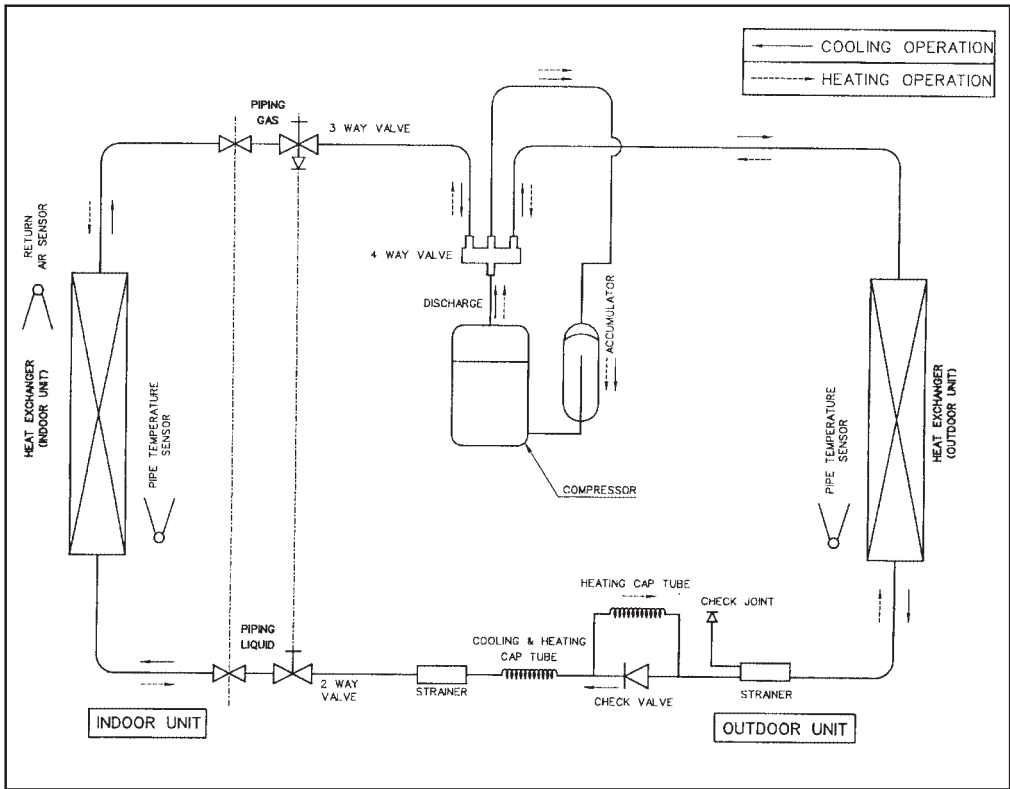
Model : MLC 030B



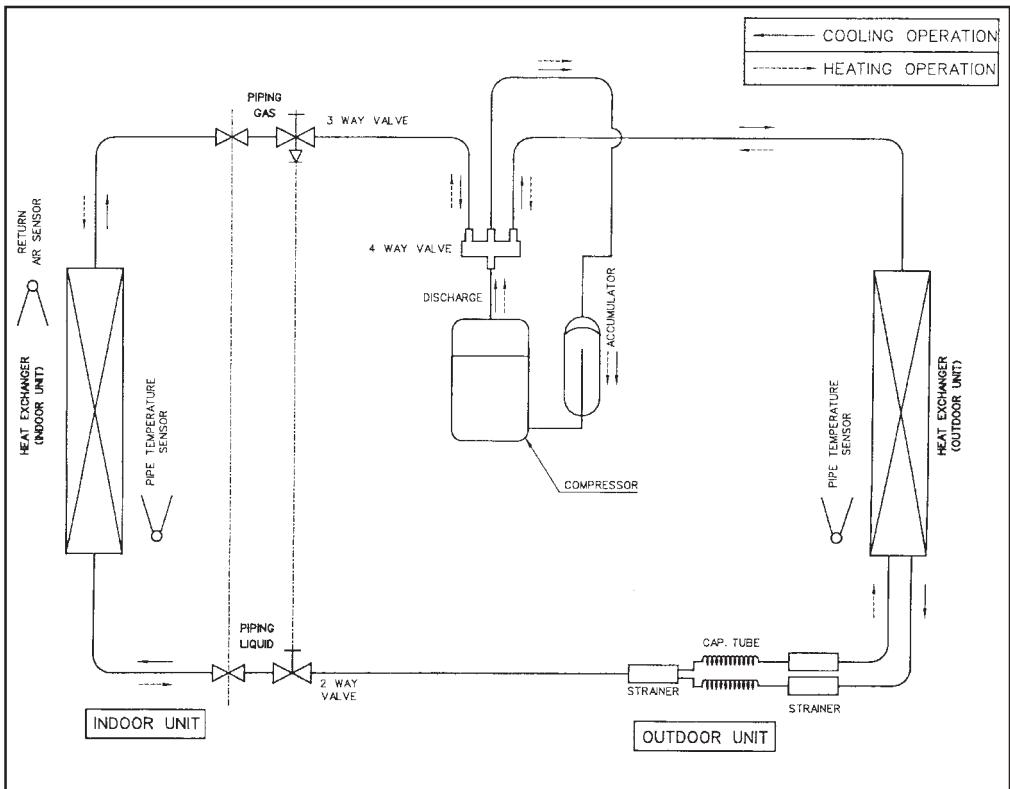
Model : MLC / M4LC 030C



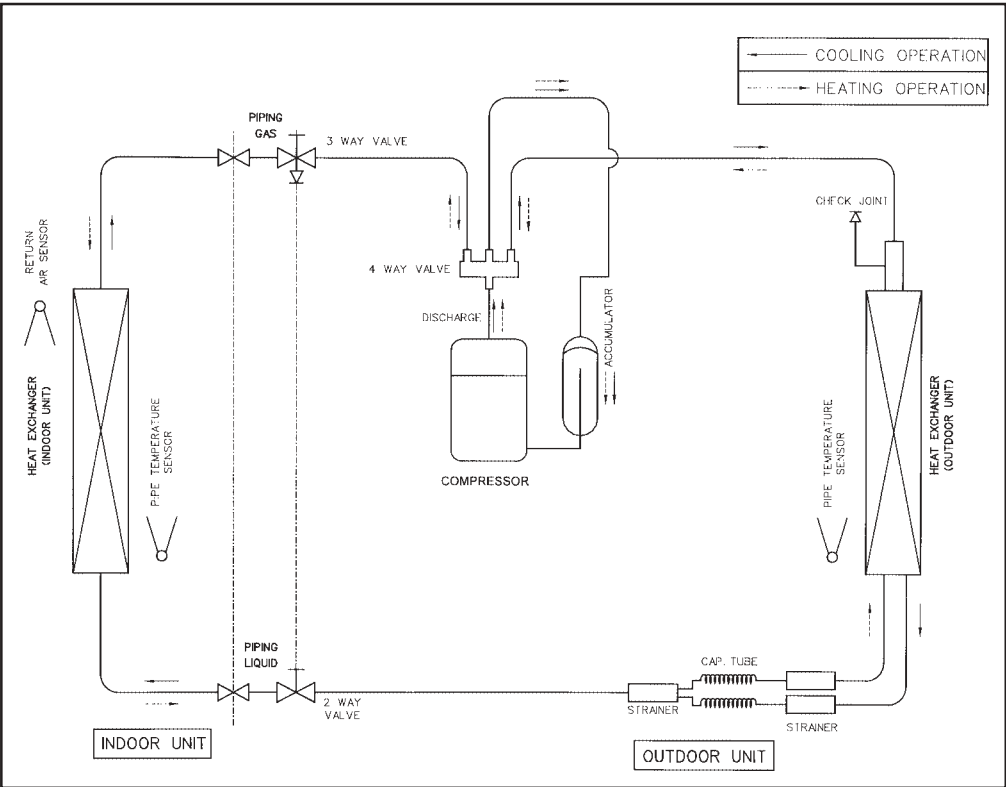
Heatpump Models
Model : M4LC 007BR / 010BR , MLC 010CR



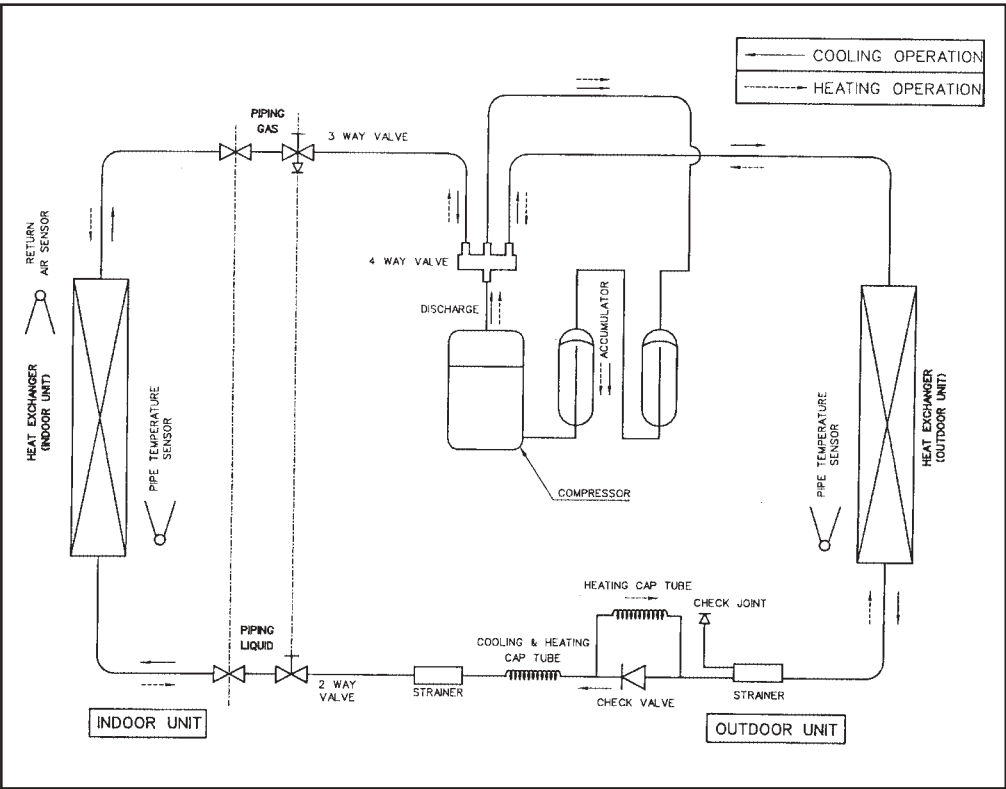
Model : M4LC 015BR



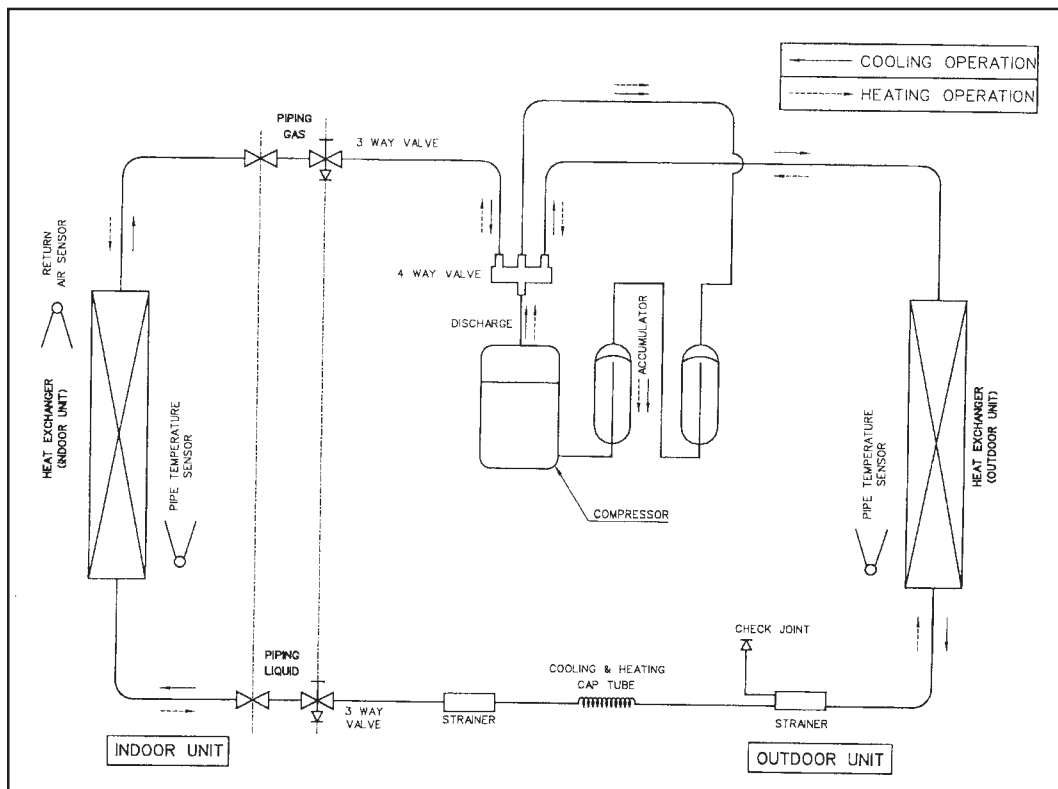
Model : MLC 015CR



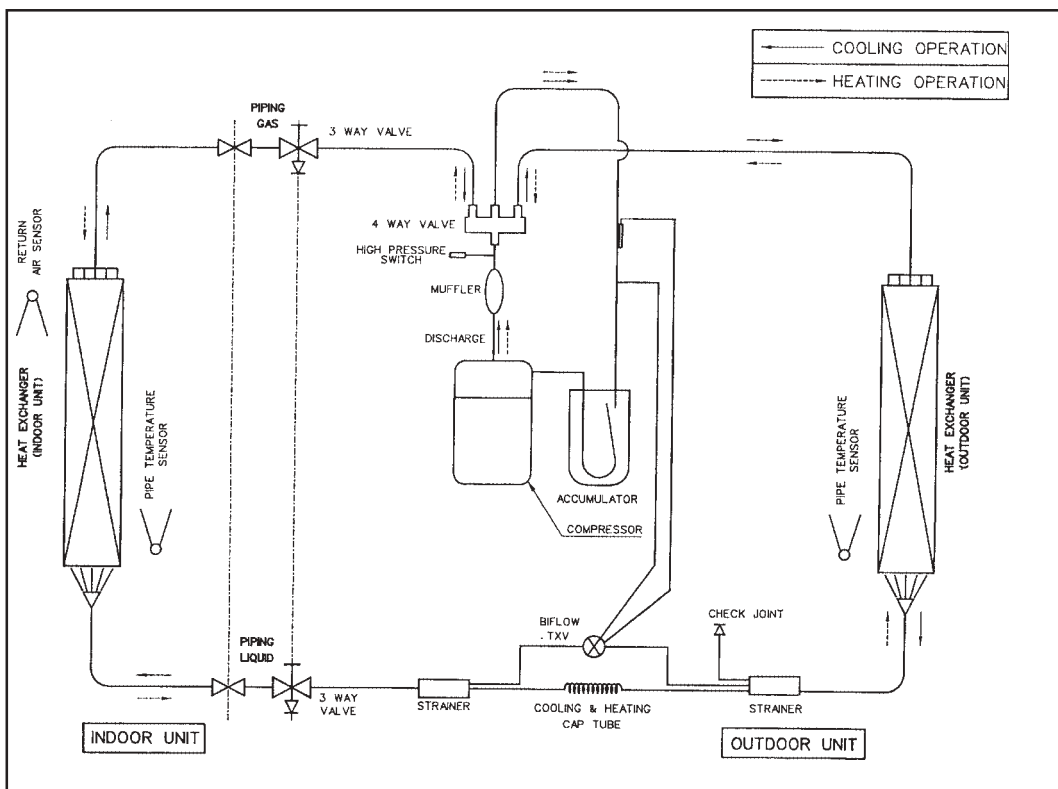
Model : MLC / M4LC 020BR



Model : MLC / M4LC 025BR , MLC 030BR



Model : MLC / M4LC 030CR

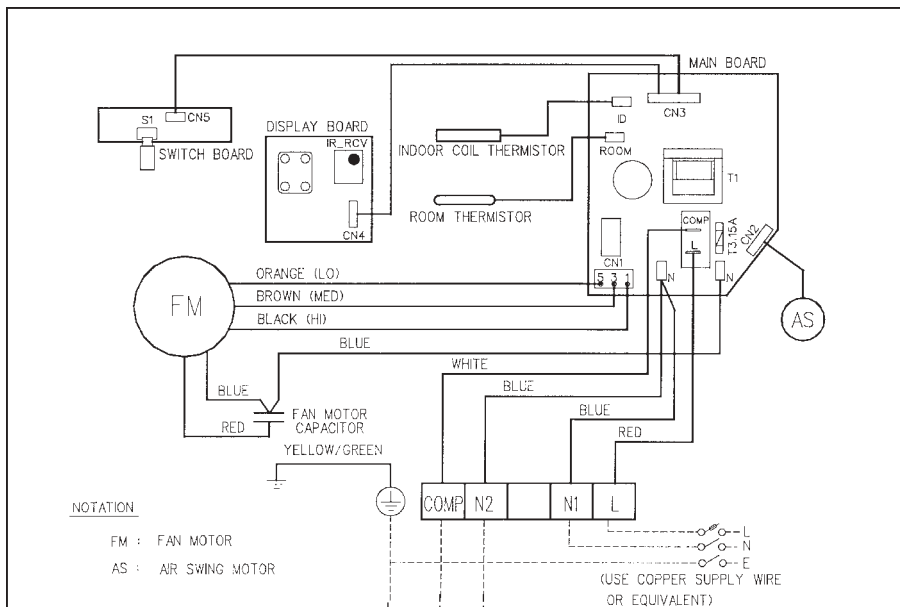


Wiring Diagram

Cooling Only Models

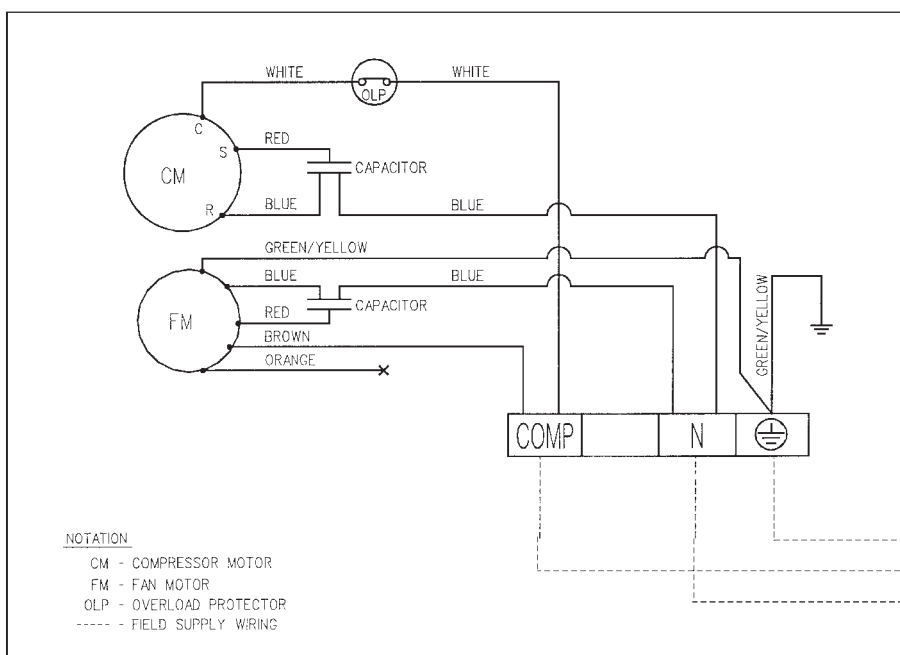
Indoor Unit

Model : MWM 007F / 010F / 015F (D2.0 I.C.)



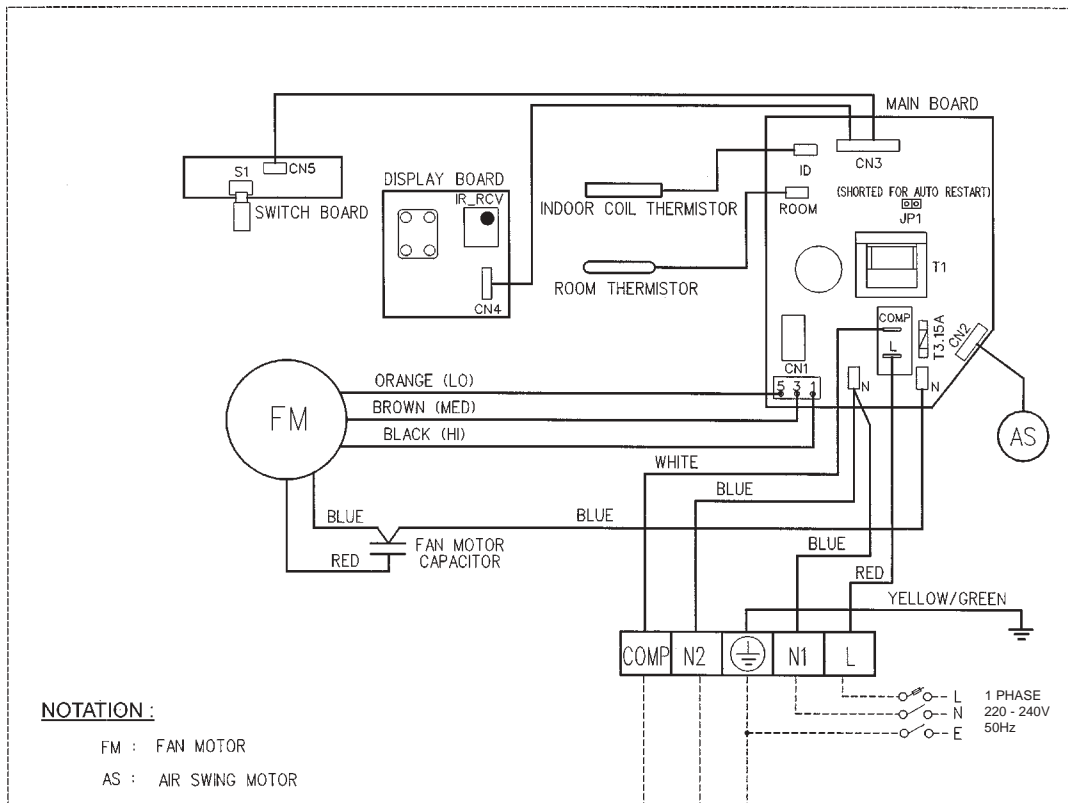
Outdoor Unit

Model : M4LC 007B / 010B / 015B



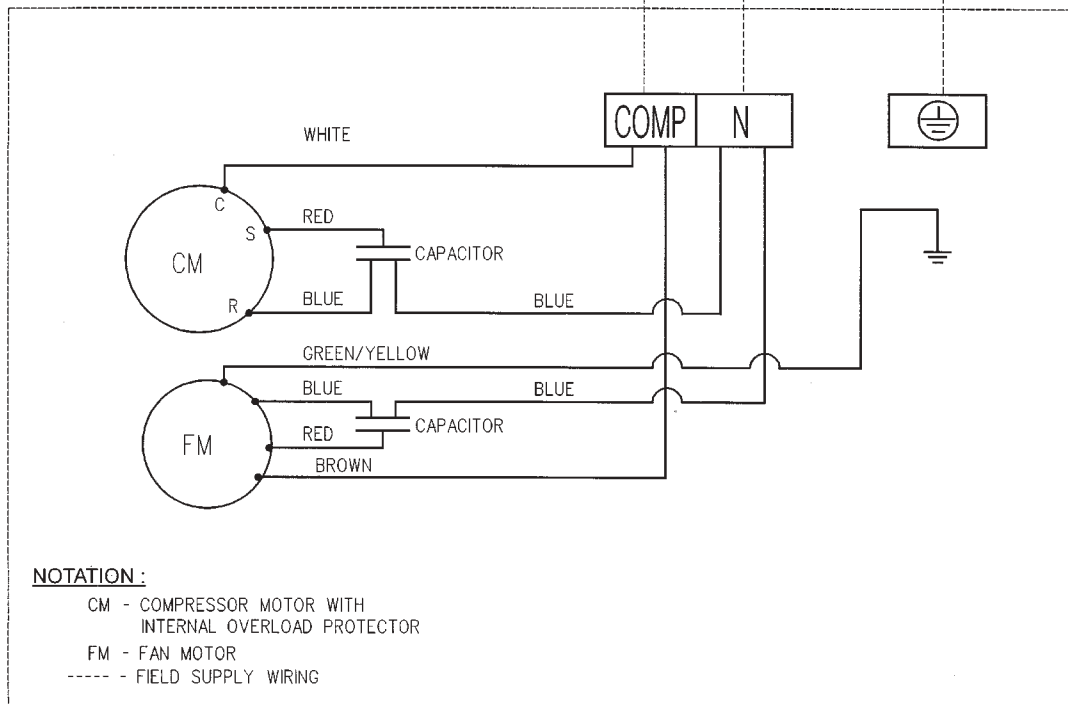
Indoor Unit

Model : MWM 020F / 025F (D2.0 I.C.)

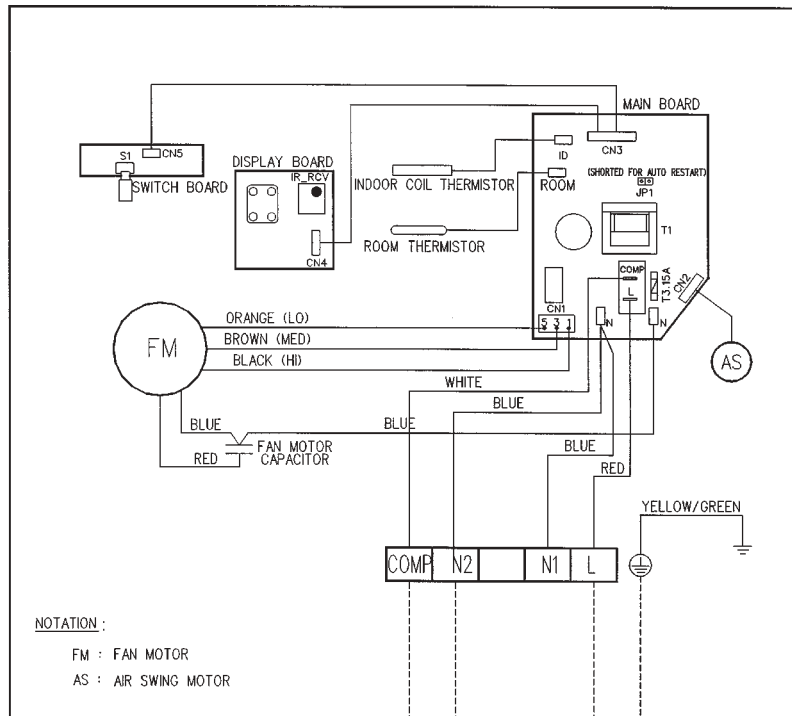


Outdoor Unit

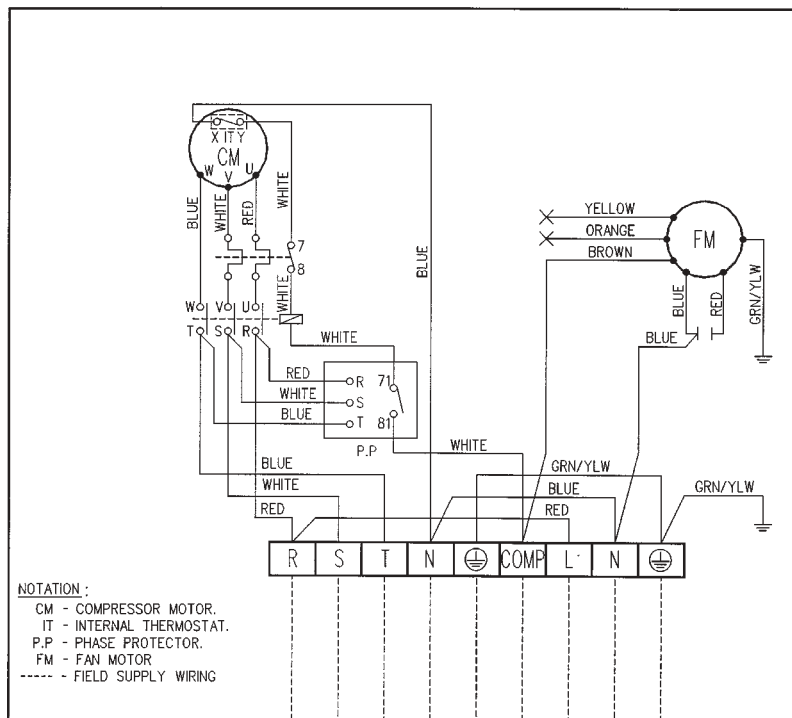
Model : MLC 020B / 025B
M4LC 020B / 025B



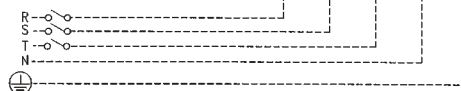
Indoor Unit
Model : MWM 020F / 025F (D2.0 I.C.)



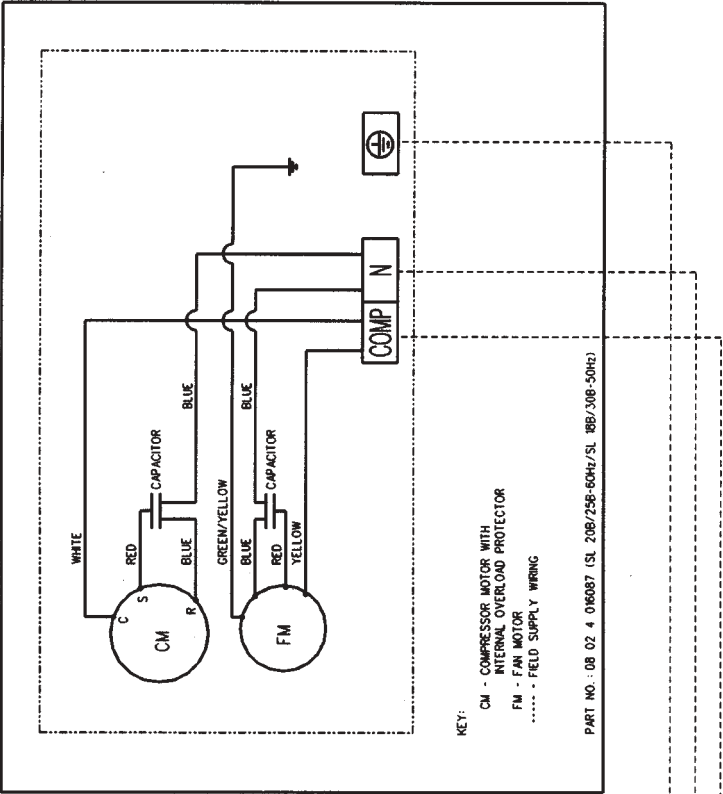
Outdoor Unit
Model : MLC 020B / 025B
M4LC 020B / 025B



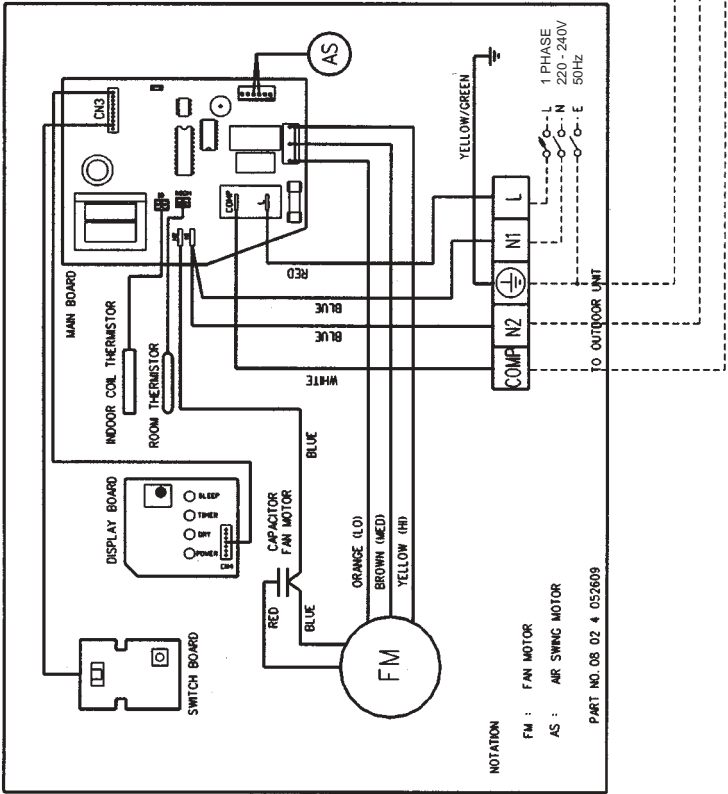
3 PHASE
 380 - 415V
 50Hz



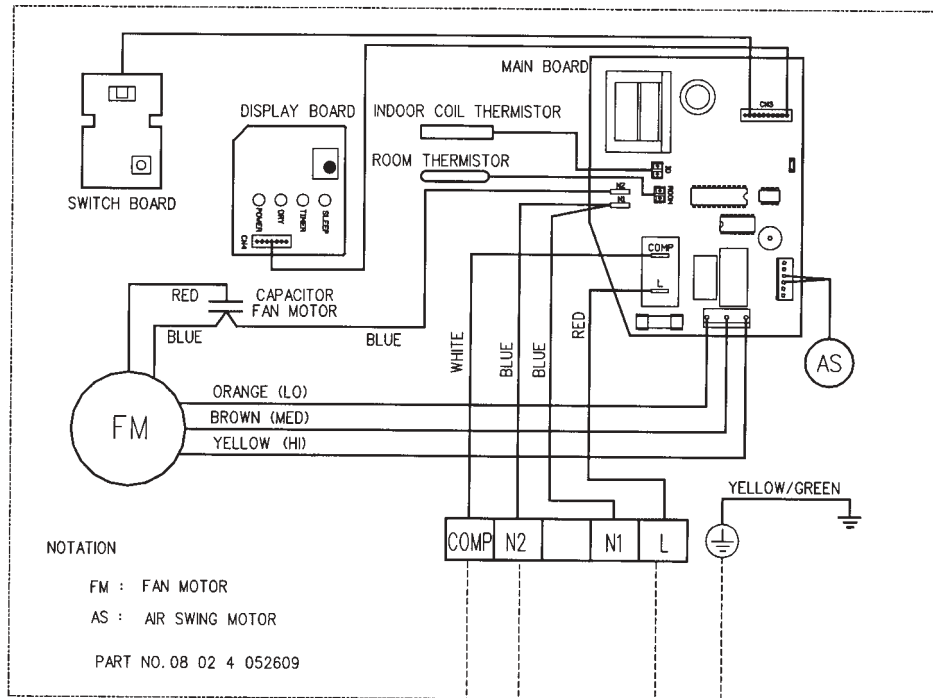
Outdoor Unit
Model : MLC 030B



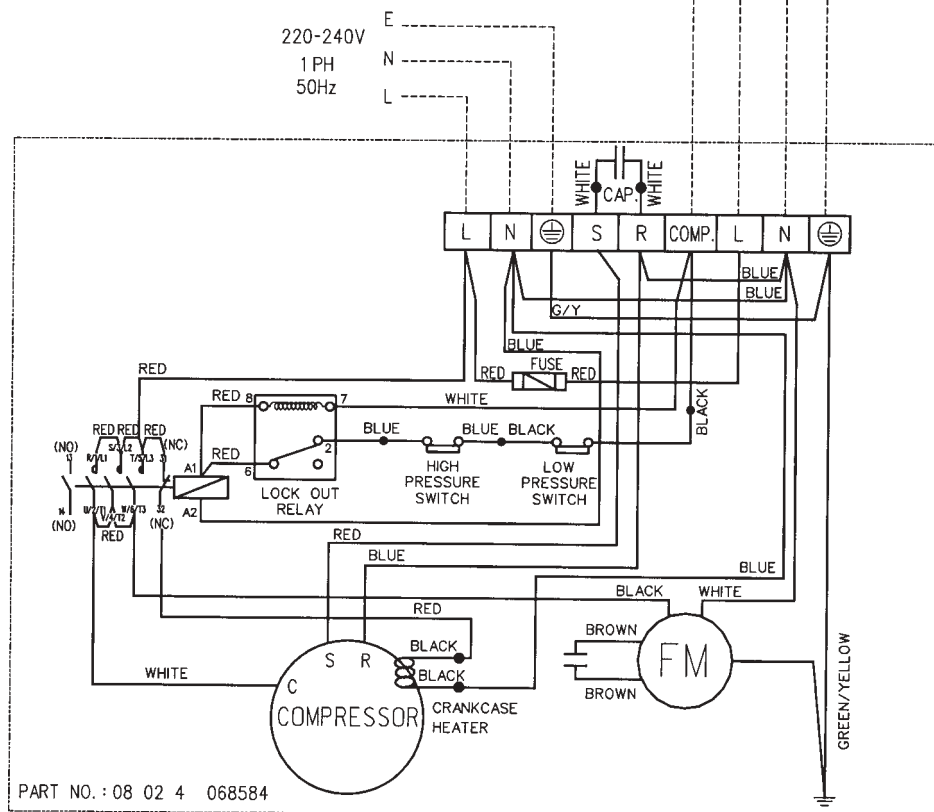
Indoor Unit
Model : MWM 030F (D2.0 I.C.)



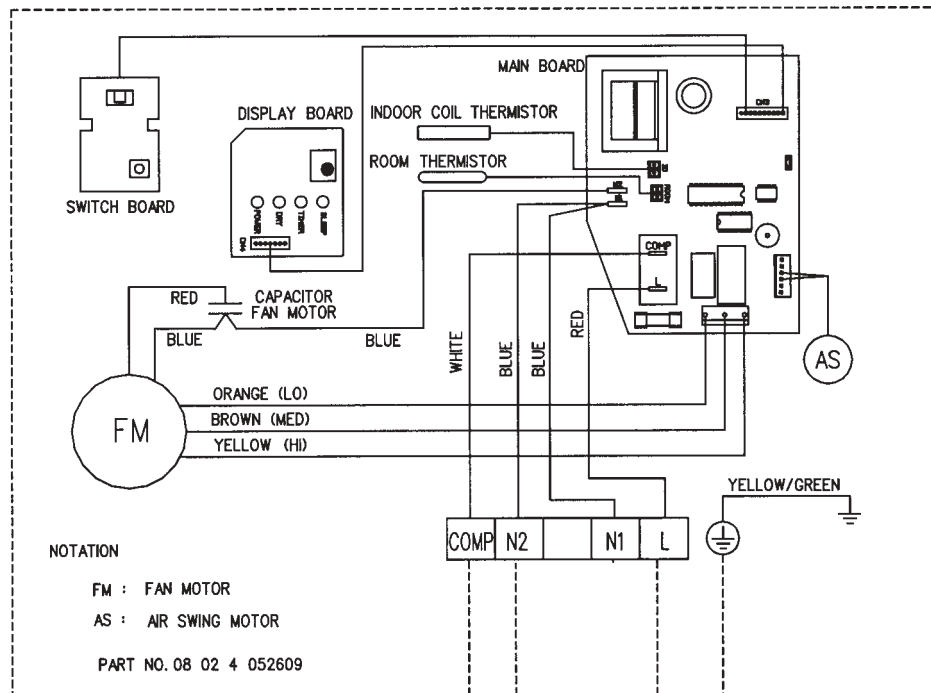
Indoor Unit
Model : MWM 030F (D2.01.C)



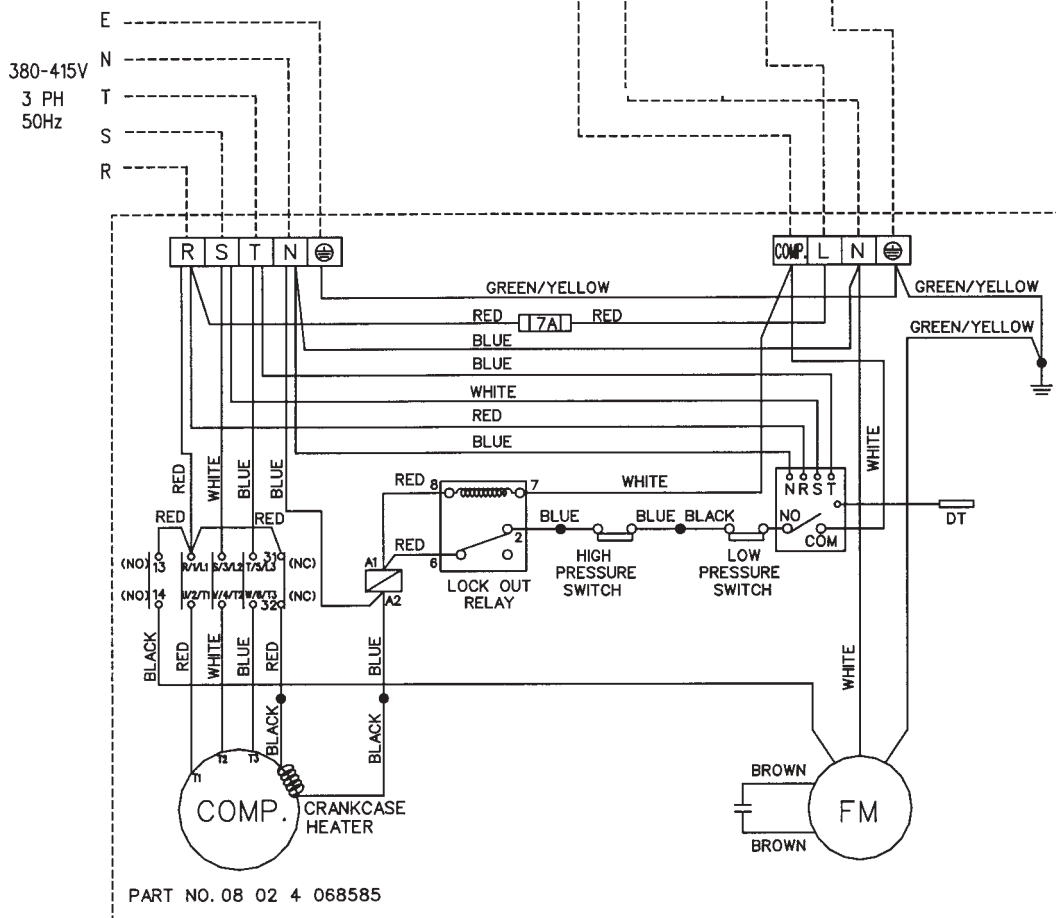
Outdoor Unit
Model : MLC/ M4LC 030C



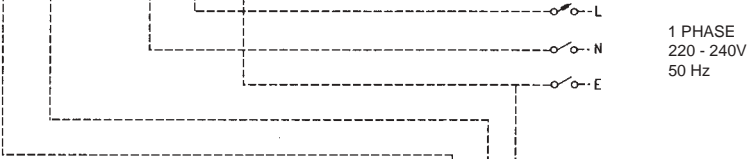
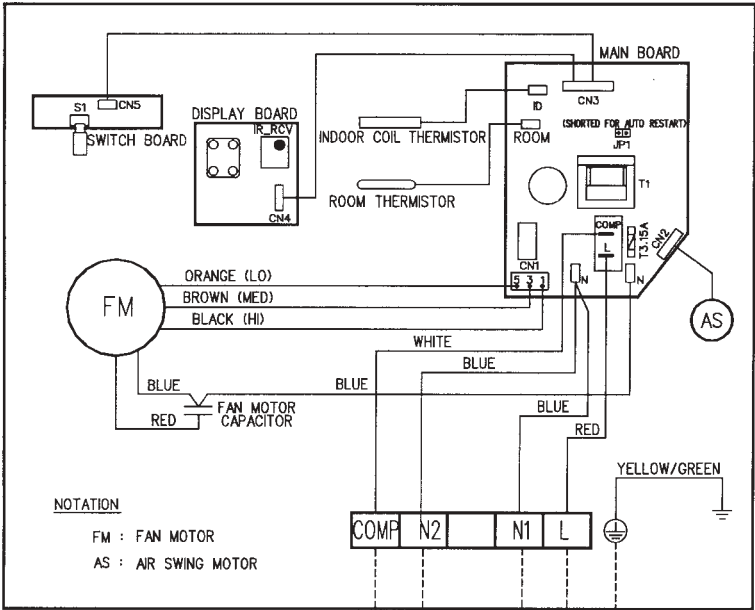
Indoor Unit
Model : MWM 030F (D2.01.C.)



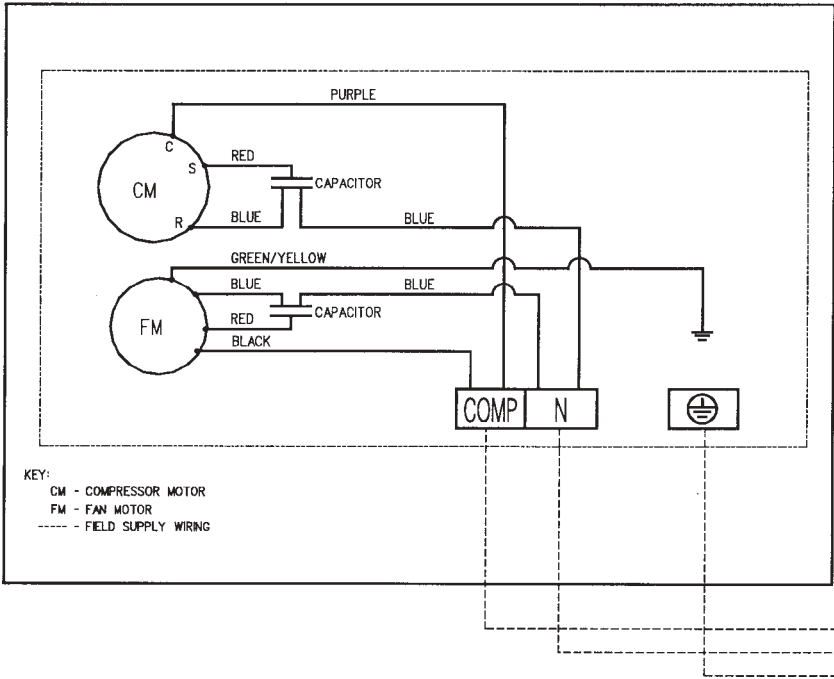
Outdoor Unit
Model : MLC/ M4LC 030C



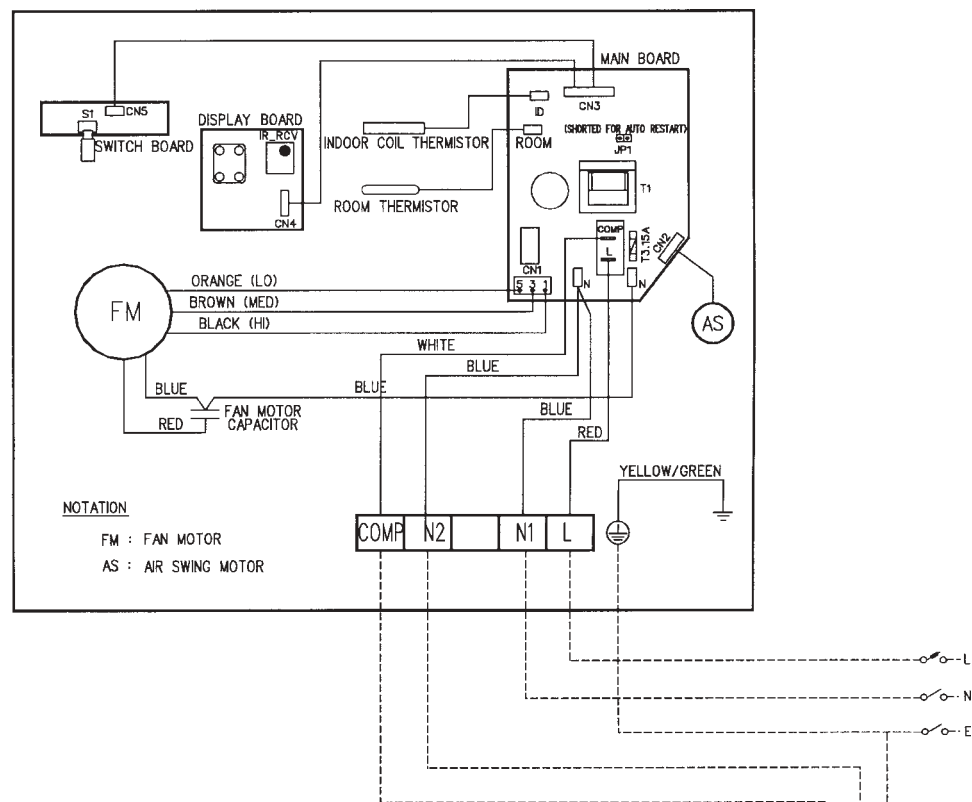
Indoor Unit
Model : MWM 015F (D2.0 I.C.)



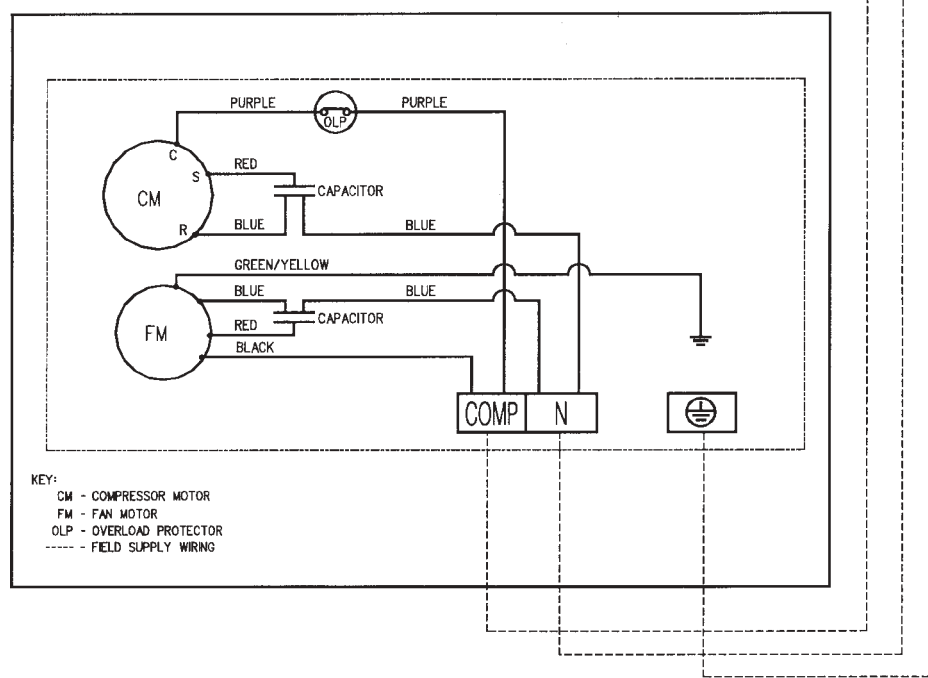
Outdoor Unit
Model : MLC 015C



Indoor Unit
Model : MWM 010F (D2.0 I.C.)



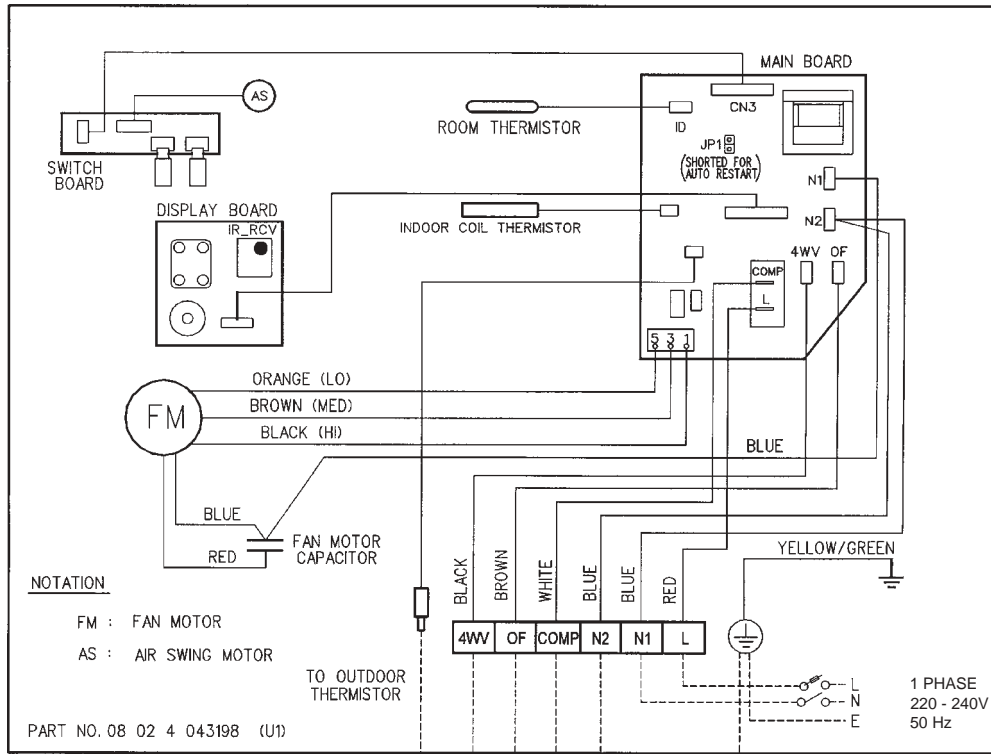
Outdoor Unit
Model : MLC 010C



Heatpump Models

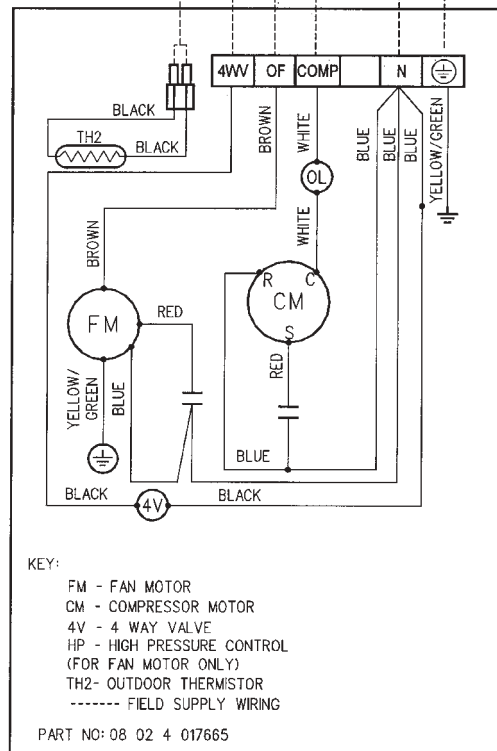
Indoor Unit

Model : MWM 007FR / 010FR / 015FR (U1.4 I.C.)

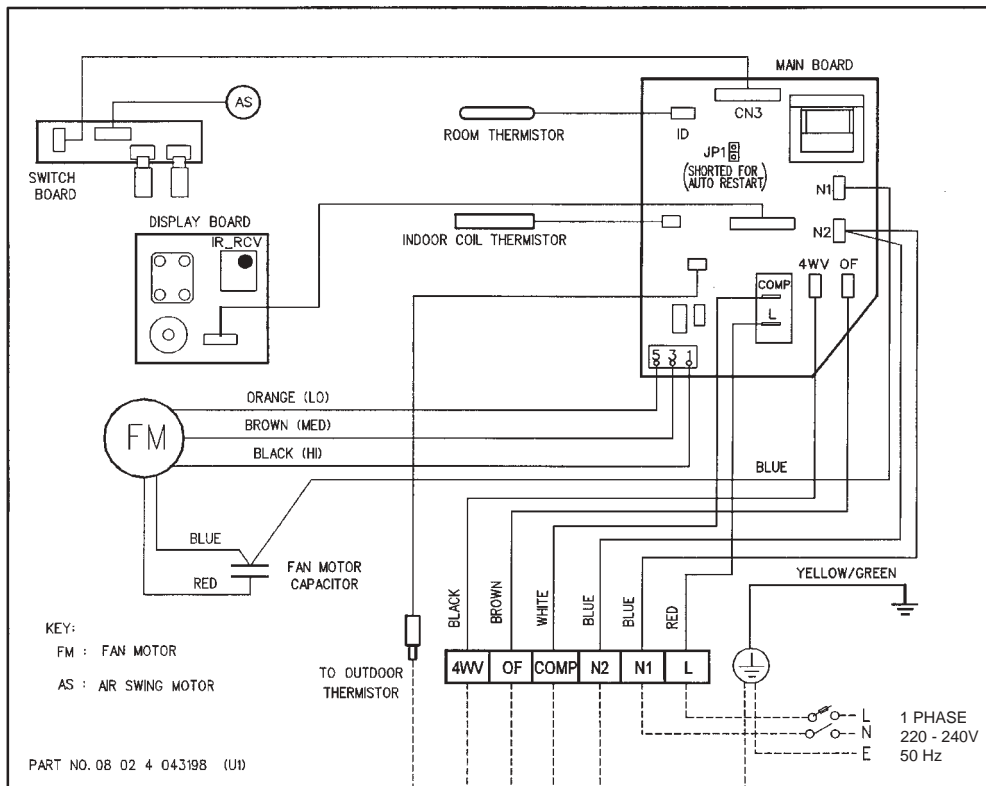


Outdoor Unit

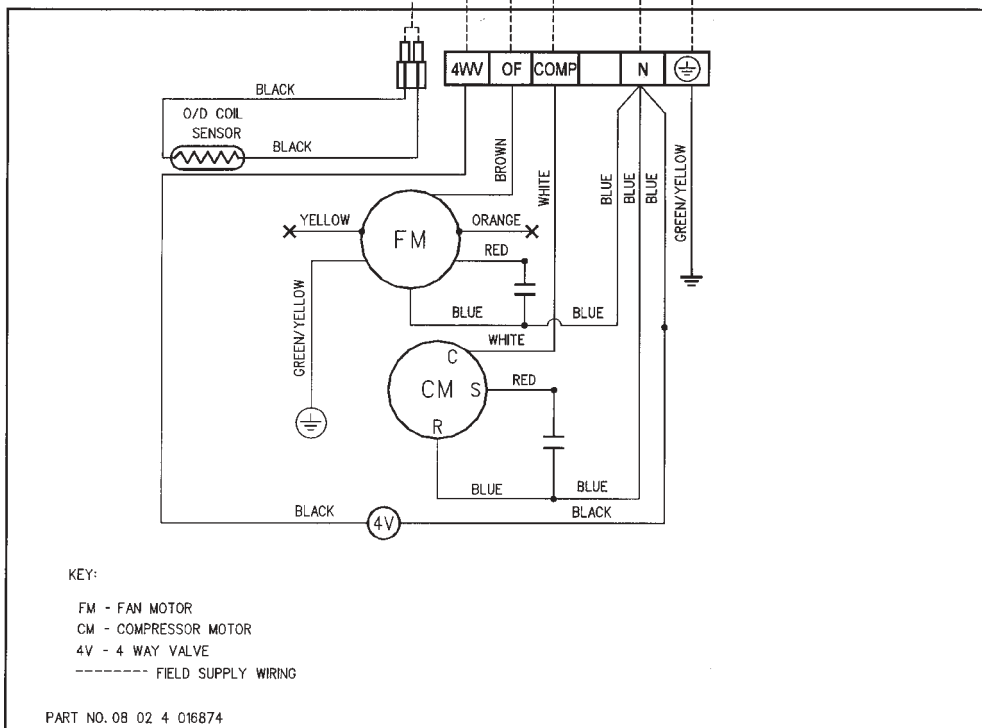
Model : M4LC 007BR / 010BR / 015BR



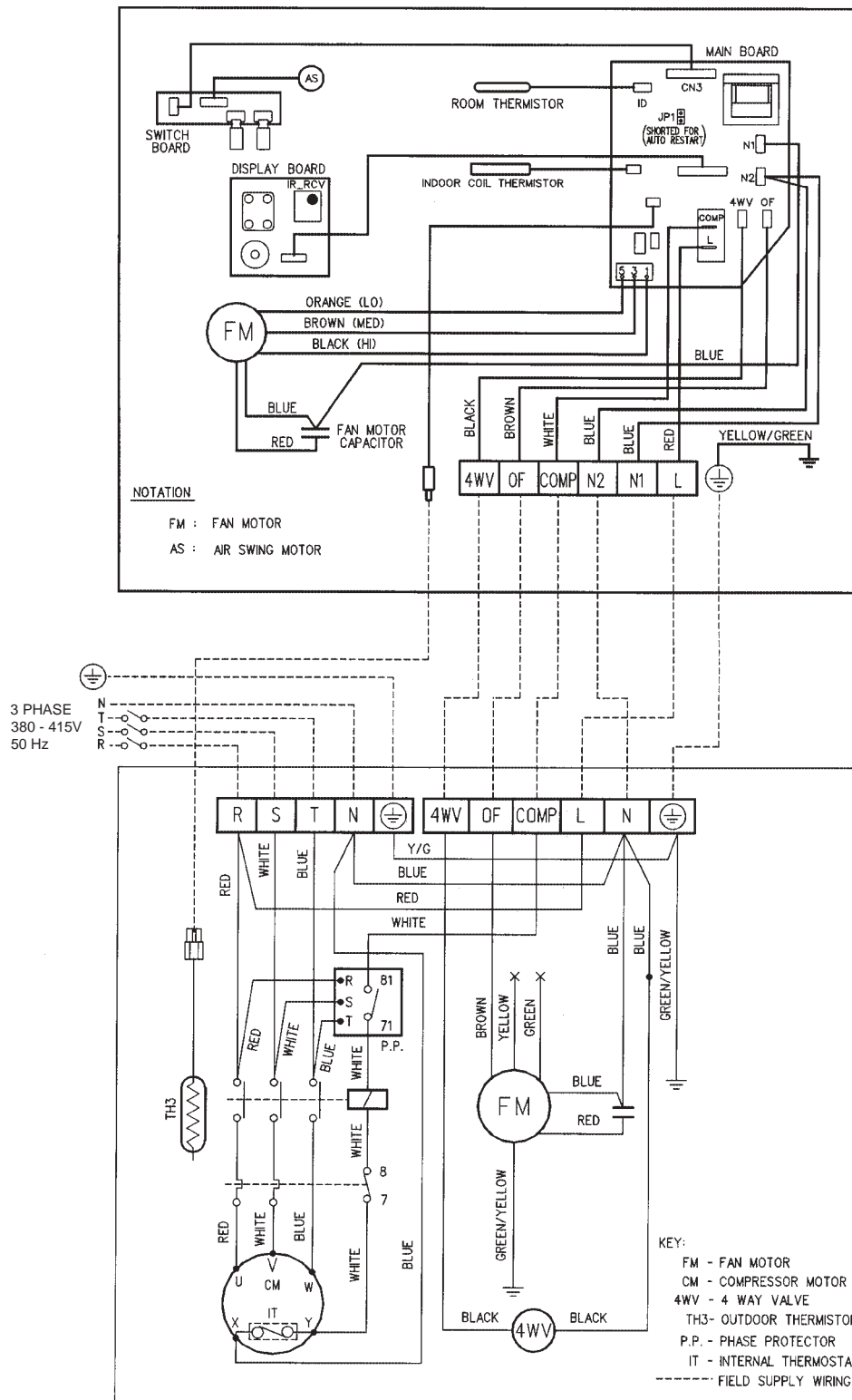
Indoor Unit
Model : MWM 020FR / 025FR (U1.4 I.C.)



Outdoor Unit
Model : MLC 020BR / 025BR
M4LC 020BR / 025BR

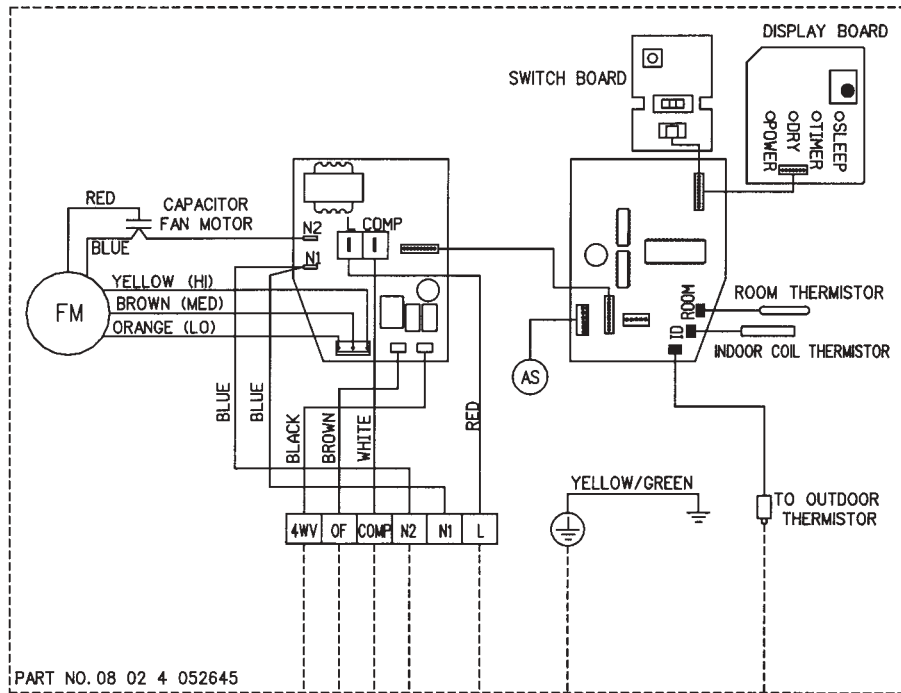


Indoor Unit
Model : MWM 020FR / 025FR (U1.4 I.C.)



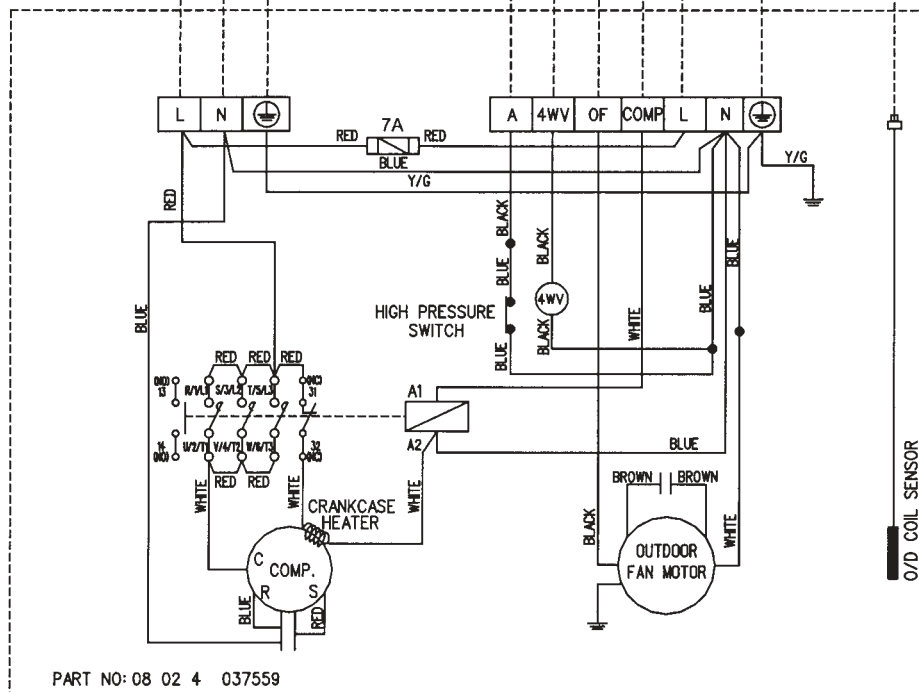
Outdoor Unit
Model : MLC 020BR / 025BR
M4LC 020BR / 025BR

Indoor Unit
Model : MWM 030FR (U1.4 1.C)

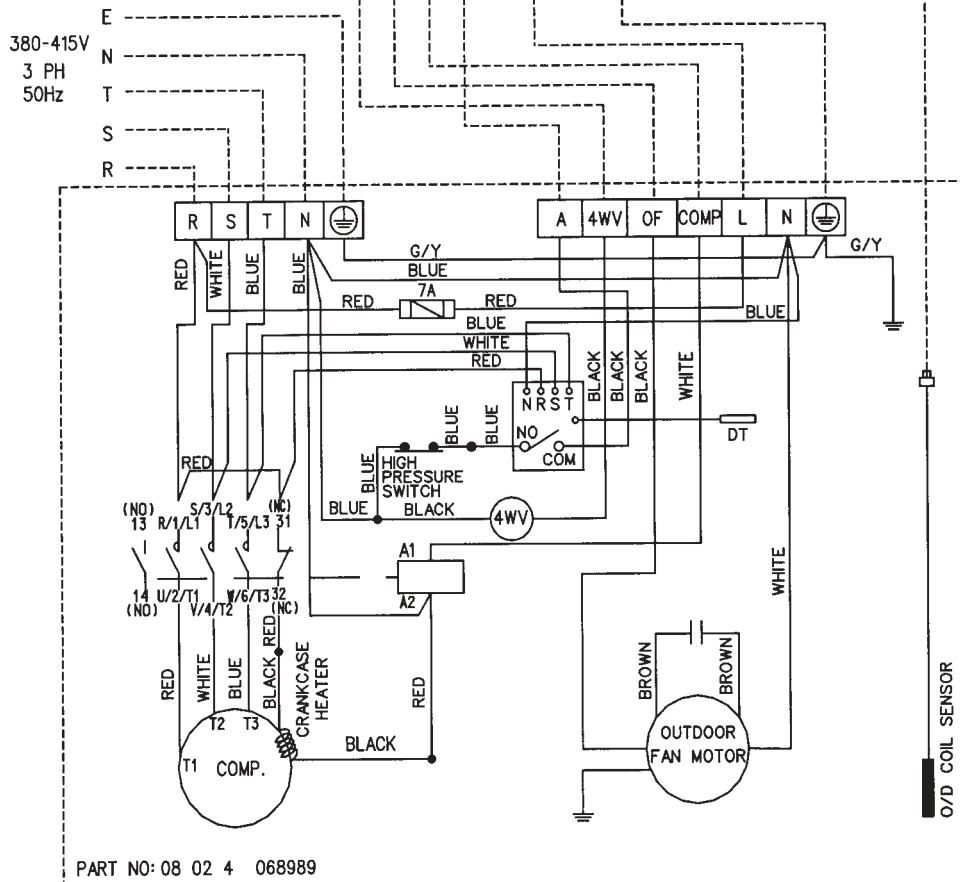
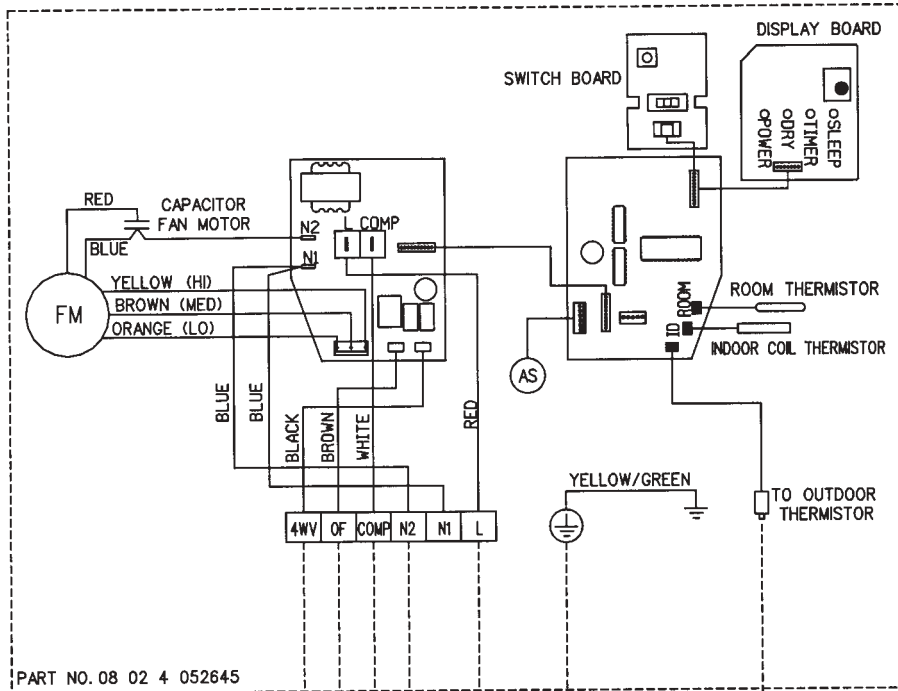


Outdoor Unit
Model : MLC / M4LC 030CR

220-240V E
 1 PH N
 50Hz L

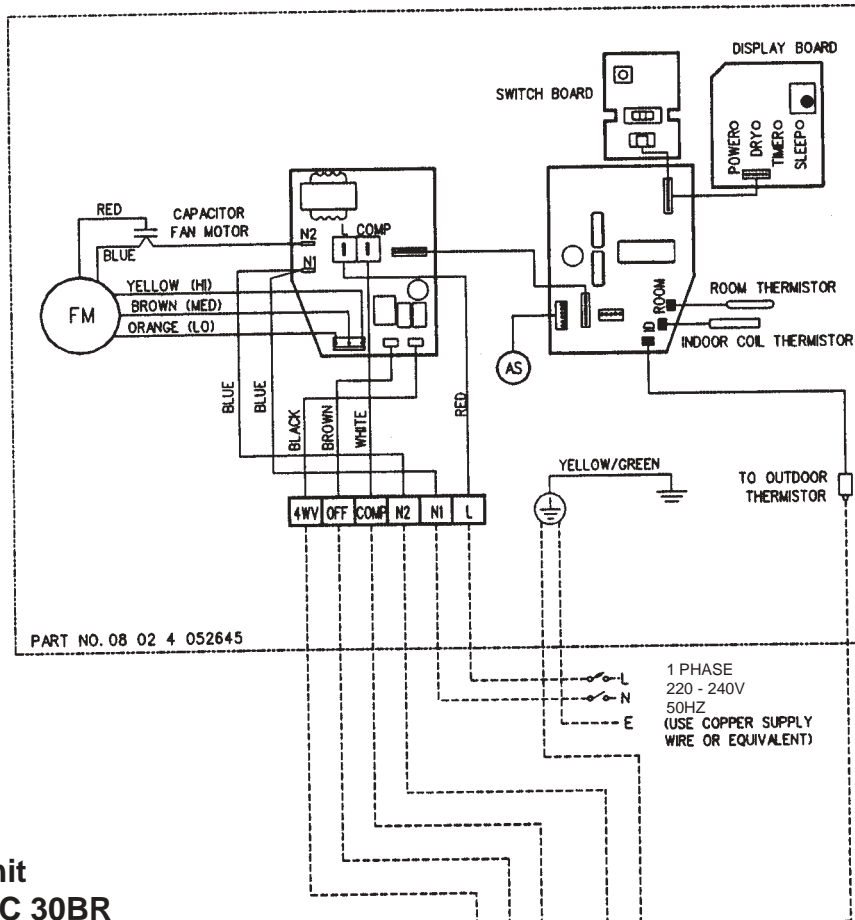


Model : MWM 030FR (U1.4 1.C.)

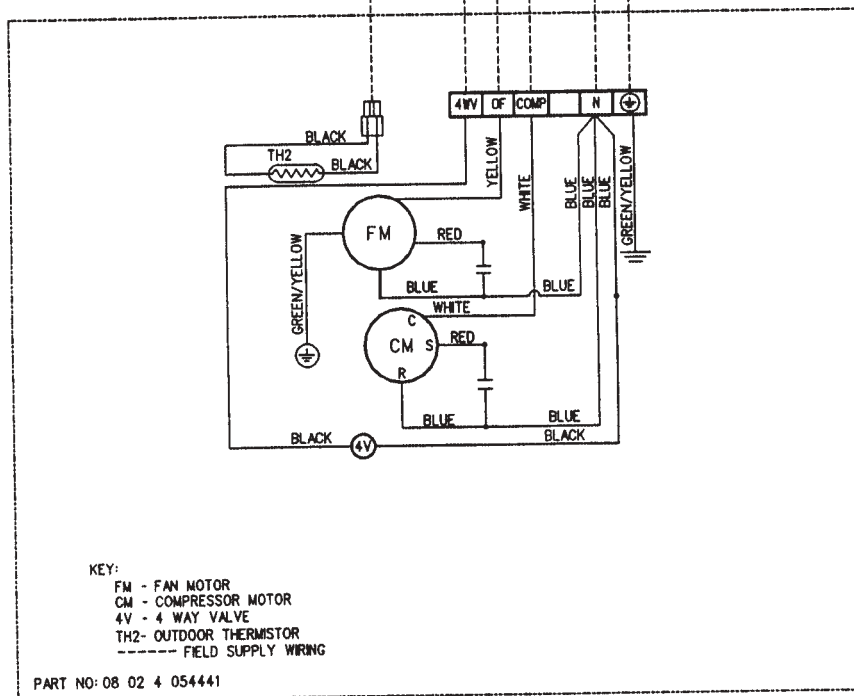


Model : MLC / M4LC 030CR

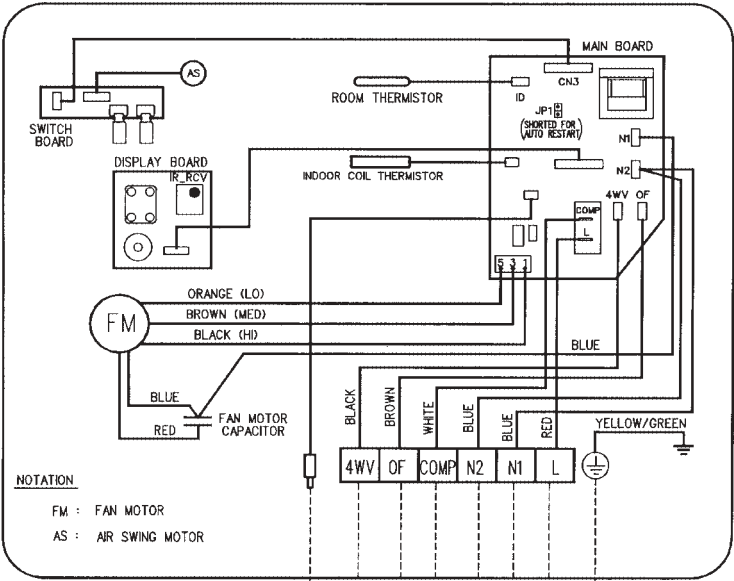
Indoor Unit
Model : MWM 030FR (U1.4 I.C.)



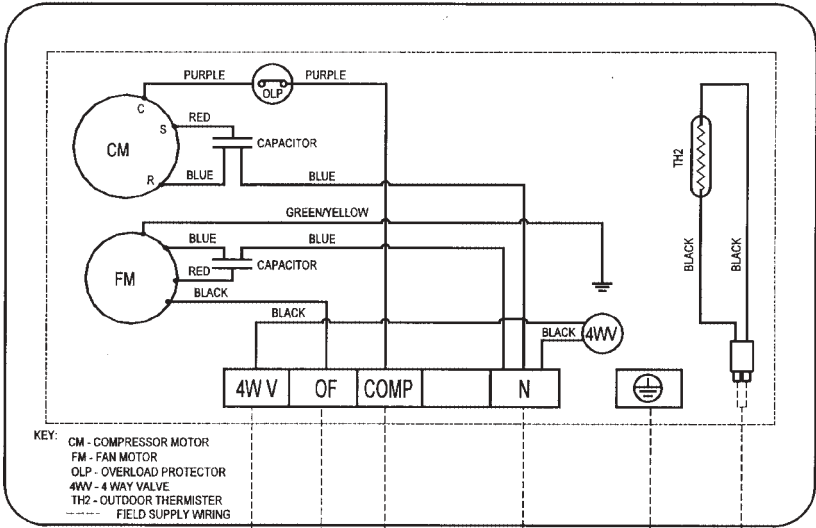
Outdoor Unit
Model : MLC 30BR



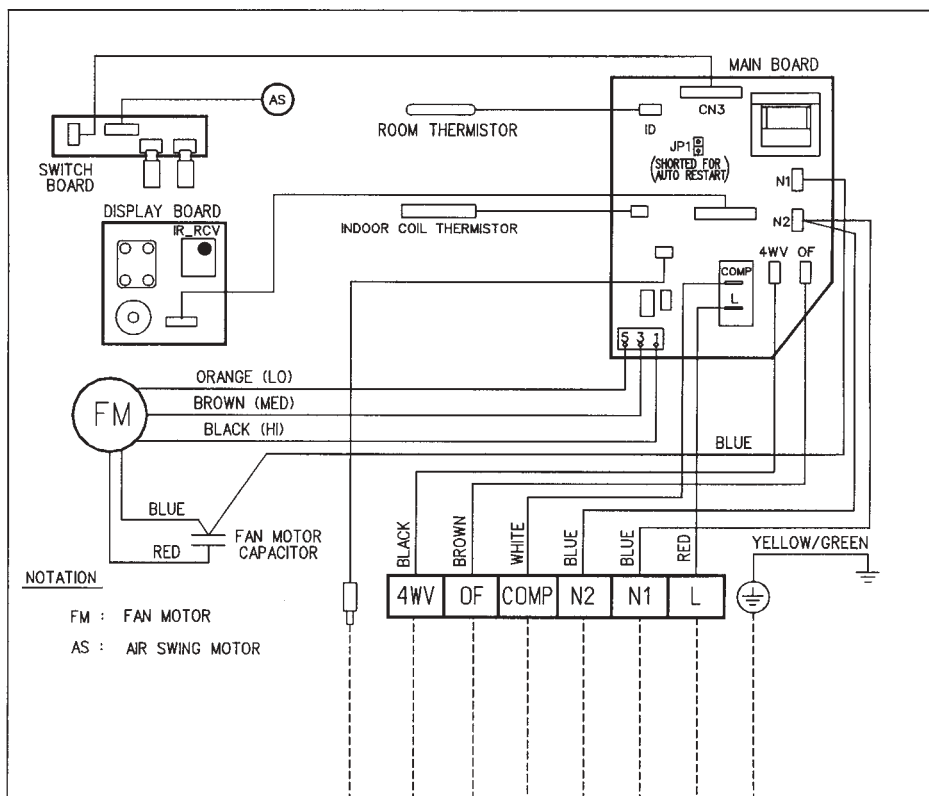
Indoor Unit
Model : MWM 010FR (U1.4 I.C.)



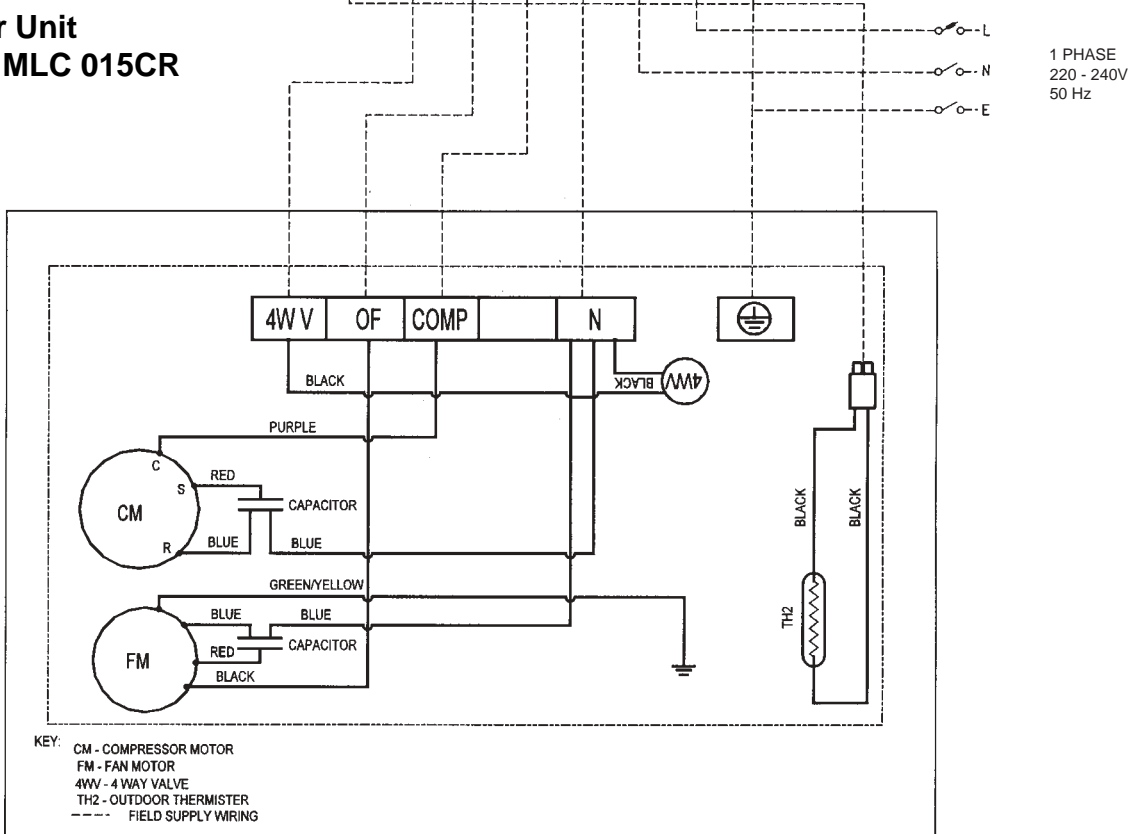
Outdoor Unit
Model : MLC 010CR



Indoor Unit
Model : MWM 015FR (U1.4 I.C.)



Outdoor Unit
Model : MLC 015CR

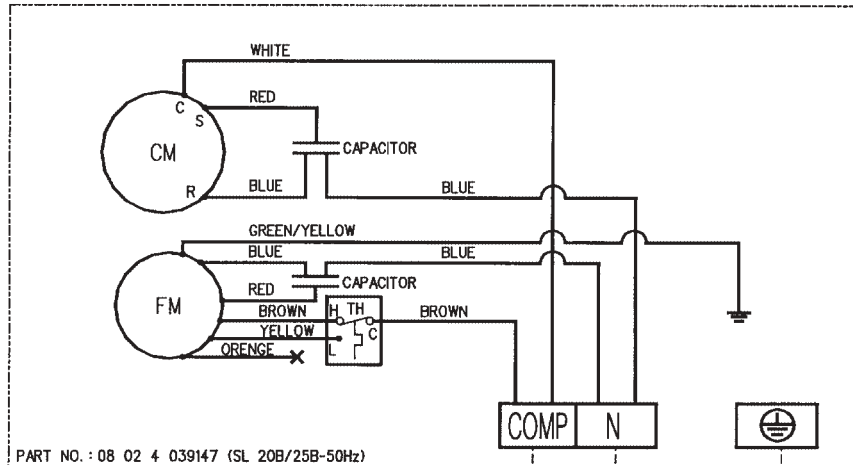


High Ambient Unit (Optional) Cooling Only Models

Outdoor Unit

Model : MLC 020B / 025B

50HZ / 1 Phase / 220 – 240V



KEY:

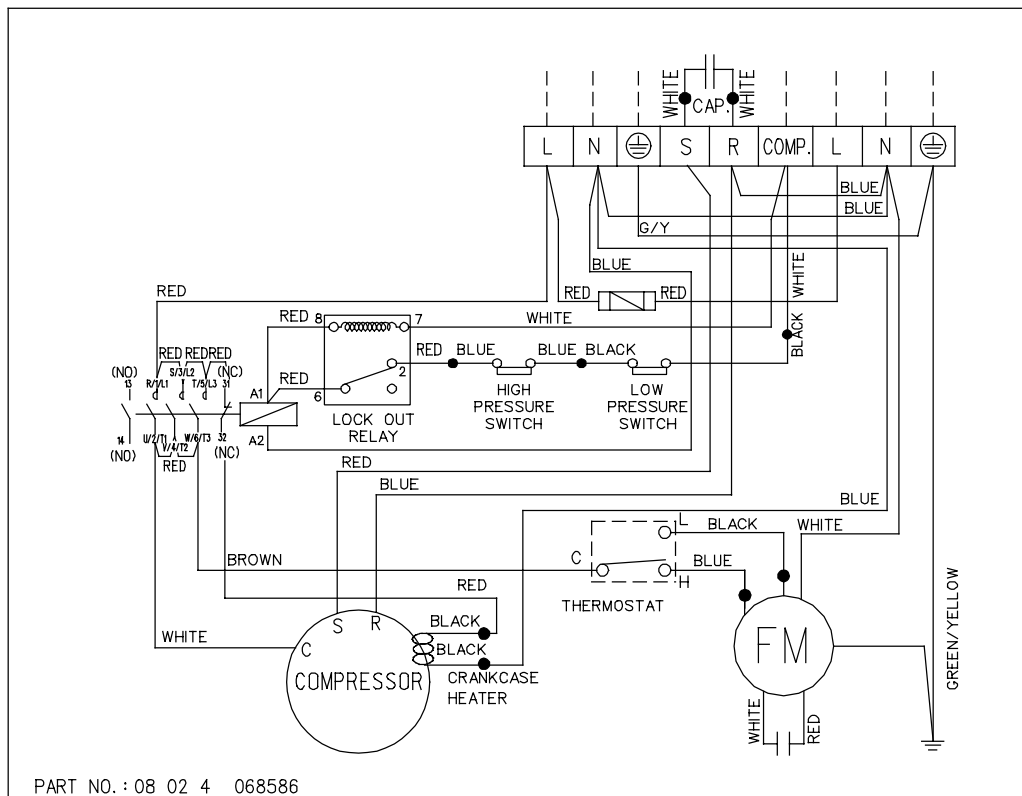
- CM - COMPRESSOR MOTOR WITH INTERNAL OVERLOAD PROTECTOR
- FM - FAN MOTOR
- TH - THERMOSTAT (FAN SPEED)
- FIELD SUPPLY WIRING

(TO INDOOR UNIT)

Outdoor Unit

Model : MLC 030C

50HZ / 1 Phase / 220 – 240V

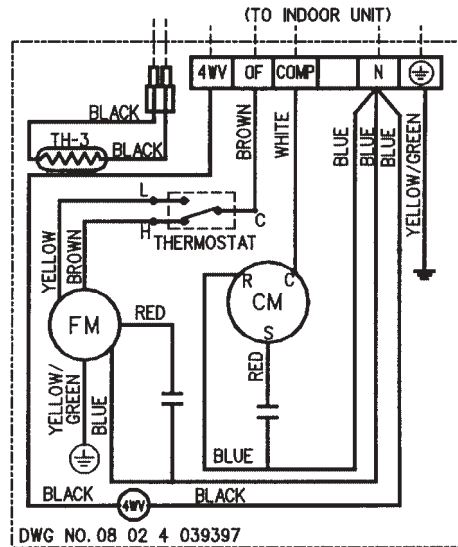


Heatpump Models

Outdoor Unit

Model : MLC 020BR / 025BR

50HZ / 1 Phase / 220 – 240V



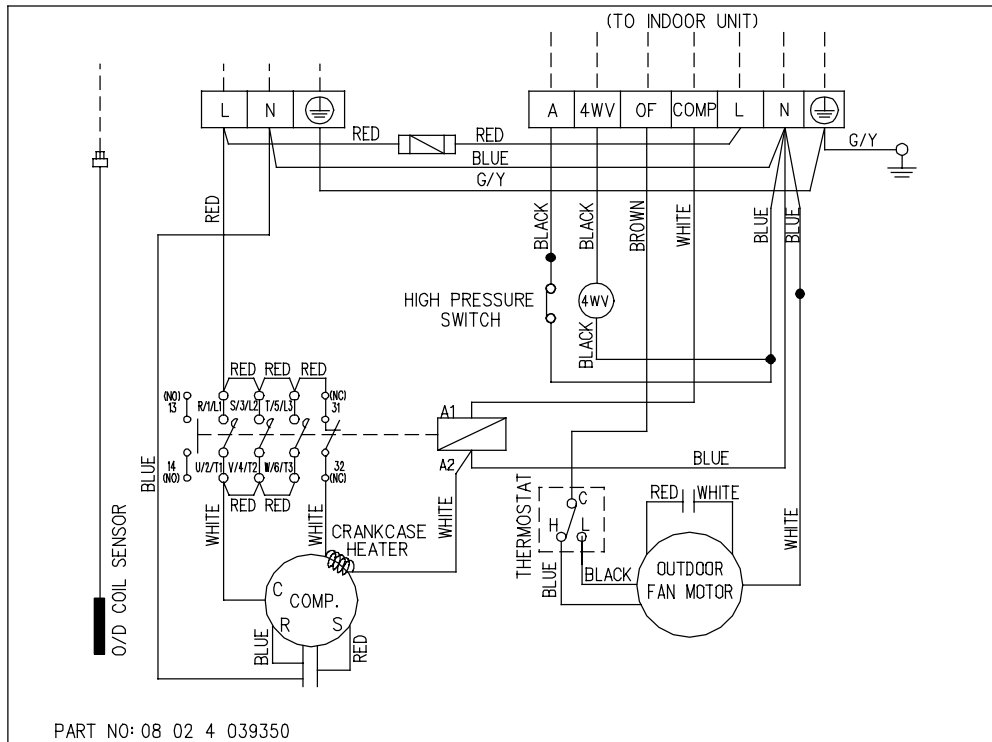
KEY:

- FM - FAN MOTOR
- CM - COMPRESSOR MOTOR
- 4WV - 4 WAY VALVE
- TH3 - OUTDOOR THERMISTOR
- FIELD SUPPLY WIRING

Outdoor Unit

Model : MLC 030CR

50HZ / 1 Phase / 220 – 240V

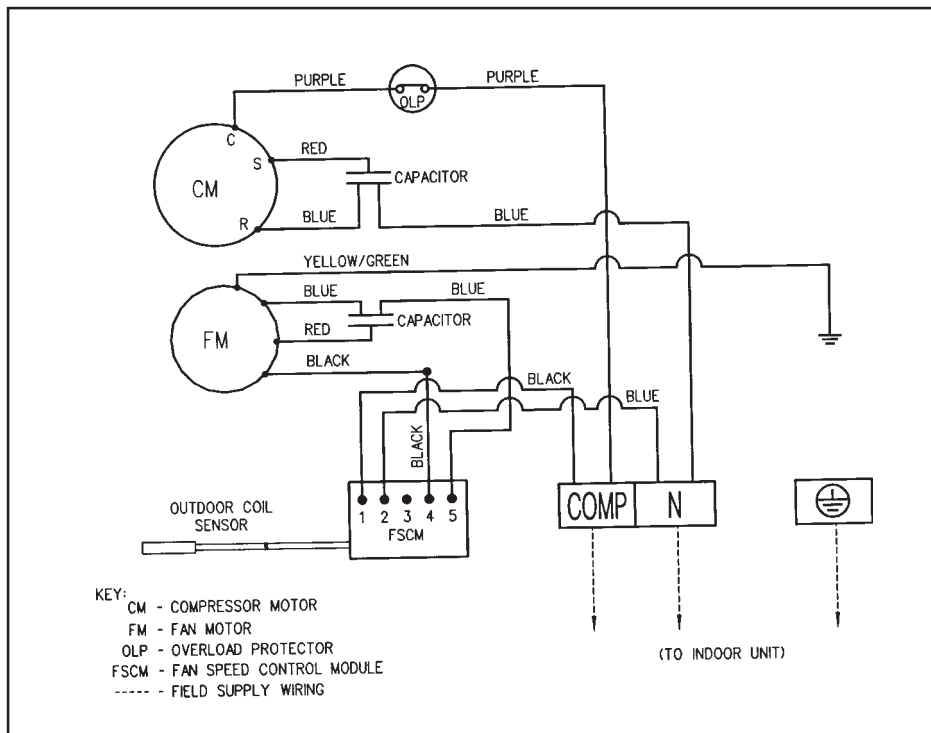


Low Ambient Unit (Optional) Cooling Only Models

Outdoor Unit

Model : MLC 010C

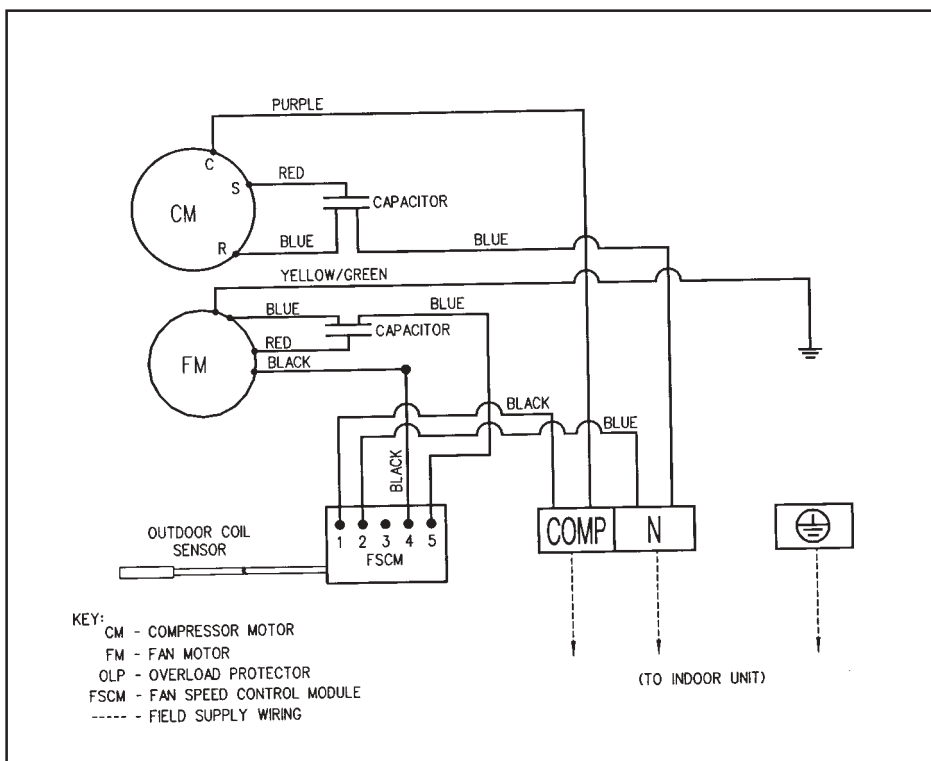
50Hz/ 1 Phase / 220-240V



Outdoor Unit

Model : MLC 015C

50Hz / 1 PHASE / 220 - 240V

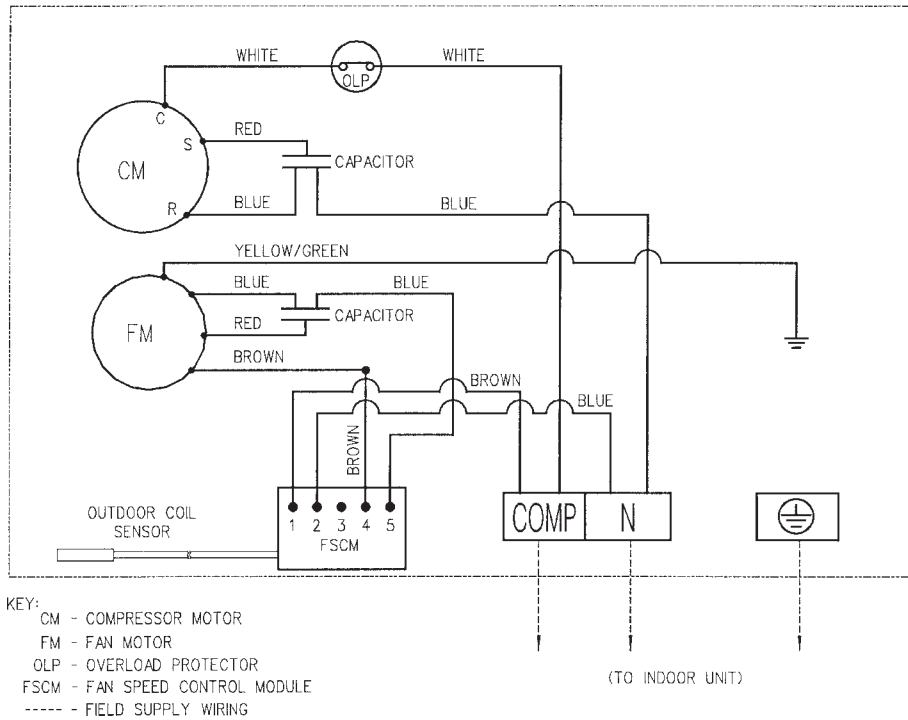


Cooling Only Models

Outdoor Unit

Model : MLC 010B / 015B

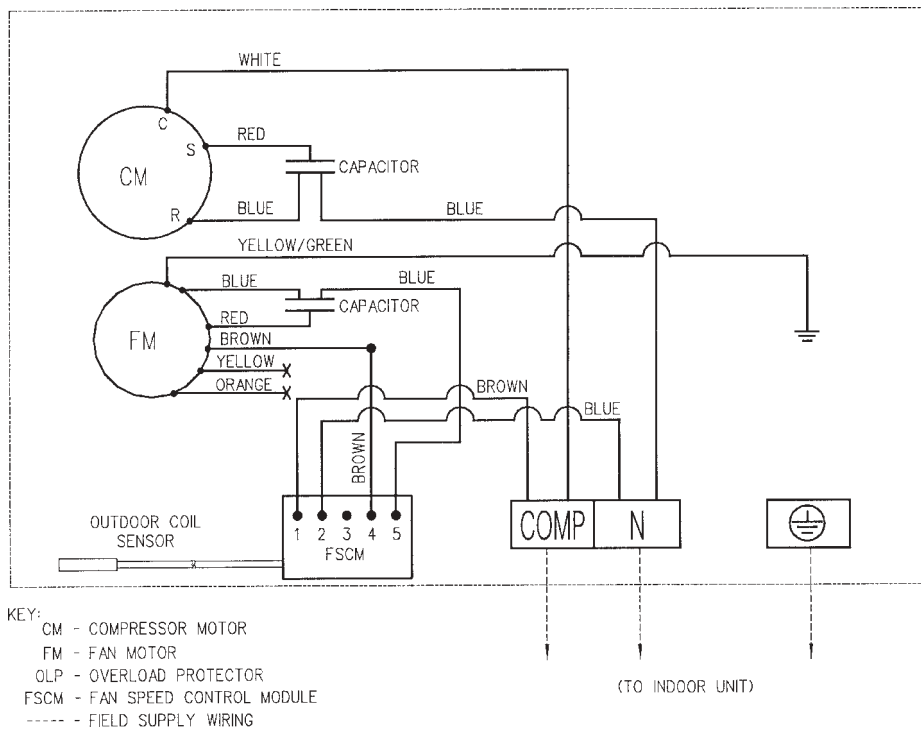
50HZ / 1 Phase / 220~240V



Outdoor Unit

Model : MLC 020B / 025B

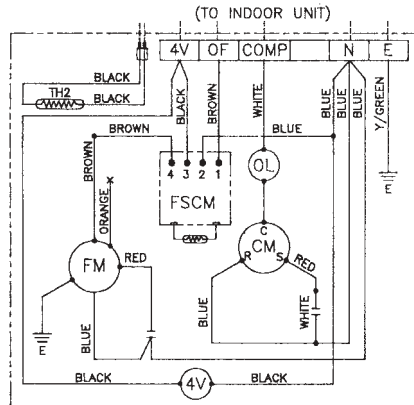
50HZ / 1 Phase / 220~240V



Heatpump Models

Outdoor Unit

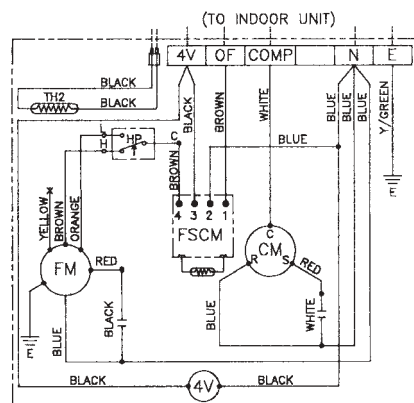
Model : MLC 010BR / 015BR
50HZ / 1 Phase / 220 – 240V



KEY:
FM - FAN MOTOR
CM - COMPRESSOR MOTOR
OL - OVER LOAD
4V - 4 WAY VALVE
TH2 - OUTDOOR THERMISTOR
FSCM - FAN SPEED CONTROL MODULE
--- FIELD SUPPLY WIRING

Outdoor Unit

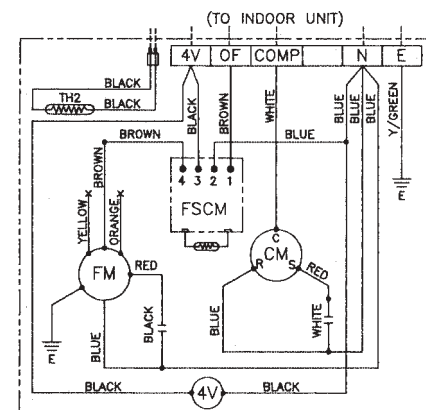
Model : MLC 020BR
50HZ / 1 Phase / 220 – 240V



KEY:
FM - FAN MOTOR
CM - COMPRESSOR MOTOR
4V - 4 WAY VALVE
TH2 - OUTDOOR THERMISTOR
HP - HIGH PRESSURE CONTROL
(FOR FAN MOTOR ONLY)
FSCM - FAN SPEED CONTROL MODULE
--- FIELD SUPPLY WIRING

Outdoor Unit

Model : MLC 025BR
50HZ / 1 Phase / 220 – 240V



KEY:
FM - FAN MOTOR
CM - COMPRESSOR MOTOR
4V - 4 WAY VALVE
TH2 - OUTDOOR THERMISTOR
FSCM - FAN SPEED CONTROL MODULE
--- FIELD SUPPLY WIRING

Safety Precaution Before Installation

Before operating, please read the following “Safety Precautions” carefully.

To prevent injury to the user or other people and properties damage, the following instructions must be followed.

- Incorrect operation due to ignoring of instruction will cause harm or damage, the seriousness is classified by the following indications.



Warning: This sign indicates the possibility of causing death or serious injury.



Caution: This sign indicates the possibility of causing injury or damage to properties only.



Warning

- This unit must be installed by a qualified technician.
- All field wiring must accordance to the National Wiring Regulation.

Important

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow Earth	→	Earth
Blue Neutral	→	Neutral
Brown Live	→	Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the earth symbol or coloured green or green-and-yellow.
- The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- The wire which is coloured brown must be connected to the terminal which is marked with letter L or coloured red.

Note

If the supply cord is damaged, it must be replaced by the special cord obtainable at authorized service/parts centers.

This unit is not provided with a plug, therefore the power supply wire must be connected by a qualified charginan.

Caution

Remove power plug or disconnect from the mains before servicing the appliance.



Symbol (with white background) denotes item that is PROHIBITED from doing.



Symbol (with black background) denotes item that is COMPULSORY to be carried out.



Caution

Please confirm the following important points when installation

- **Grounding is necessary**



It may cause electrical shock if grounding is not perfect.

- **Do not install the unit where leakage of flammable gas may occur**



In case of gas leaks and accumulates at the surrounding of the unit, it may cause fire ignition.

- **Confirm drainage piping is connected properly**



If it is not connected perfectly, it may cause water leakage and dampen the furniture.

- **Confirm the unit is switched off before install, service or maintain the unit**



If it is not switched off, it may cause injury to the installer by any of the moving part especially fan.

- **Do not overcharge the unit**



This unit is factory pre-charged. Over charge will cause over current or damage to the compressor.
Refer to page 25 in case of top up charge is necessary.

- **Confirm cover back the unit panel after servicing or installation**



Unsecure panel will cause unit noisy.

Special Precautions For R407C

Special Precautions When Dealing With Refrigerant R407C Unit

1) What is new refrigerant R407C?

R407C is a zeotropic refrigerant mixture which has Zero Ozone Depletion Potential (ODP = 0) and thus conformed to the Montreal Protocol regulation. It requires Polyol-ester oil (POE) oil for its compressor's lubricant. Its refrigerant capacity and performance are about the same as the refrigerant R22.

2) Components

Mixture weight composition R32(23%), R125(25%), R134a(52%)

3) Characteristic

- R407C liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. **DO NOT** add new refrigerant to leaked system. It is recommended that the system should be evacuated thoroughly before recharging with R407C.
- When refrigerant R407C is used, the composition will differ depending on whether it is in gaseous or liquid phase. Hence when charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R407C is being charged into the system.
- POE oil is used as lubricant for R407C compressor, which is different from the mineral oil used for R22 compressor. Extra precaution must be taken not to expose the R407C system too long to moist air.

4) Check list before installation/servicing

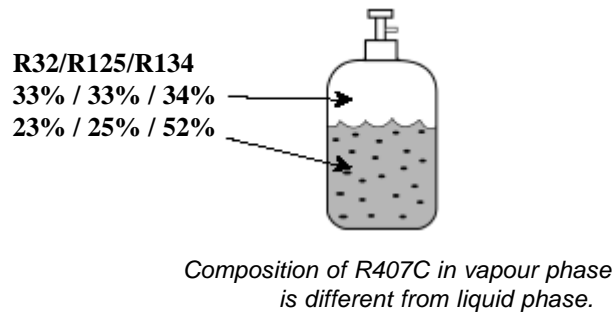
- Tubing
Refrigerant R407C is more easily affected by dust or moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation
- Compressor oil
No additional charge of compressor oil is permitted.
- Refrigerant
No other refrigerant other than R407C
- Tools
Tools specifically for R407C only (must not be used for R22 or other refrigerant)
 - i) Manifold gauge and charging hose
 - ii) Gas leak detector
 - iii) Refrigerant cylinder/charging cylinder
 - iv) Vacuum pump c/w adapter
 - v) Flare tools
 - vi) Refrigerant recovery machine

5) Handling and installation guidelines

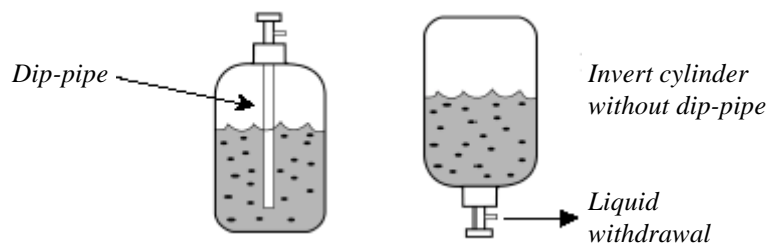
Like R22 system, the handling and installation of R407C system are closely similar. All precautionary measures; such as ensuring no moisture, no dirt or chips in the system, clean brazing using nitrogen, and thorough leak check and vacuuming are equally important requirements. However, due to zeotropic nature of R407C and its hygroscopic POE oil, additional precautions must be taken to ensure optimum and trouble-free system operation.

- a) During installation or servicing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

- b) Ensure that the compressor is not exposed to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Remove the seal-plugs only when the compressor is about to be brazed.
- c) The system should be thoroughly vacuumed to 1.0 Pa (-700mmHg) or lower. This vacuuming level is more stringent than R22 system so as to ensure no incompressible gas and moisture in the system.
- d) When charging R407C, ensure that only liquid is being withdrawn from the cylinder or can. This is to ensure that only the original composition of R407C is being delivered into the system. The liquid composition can be different from the vapor composition.



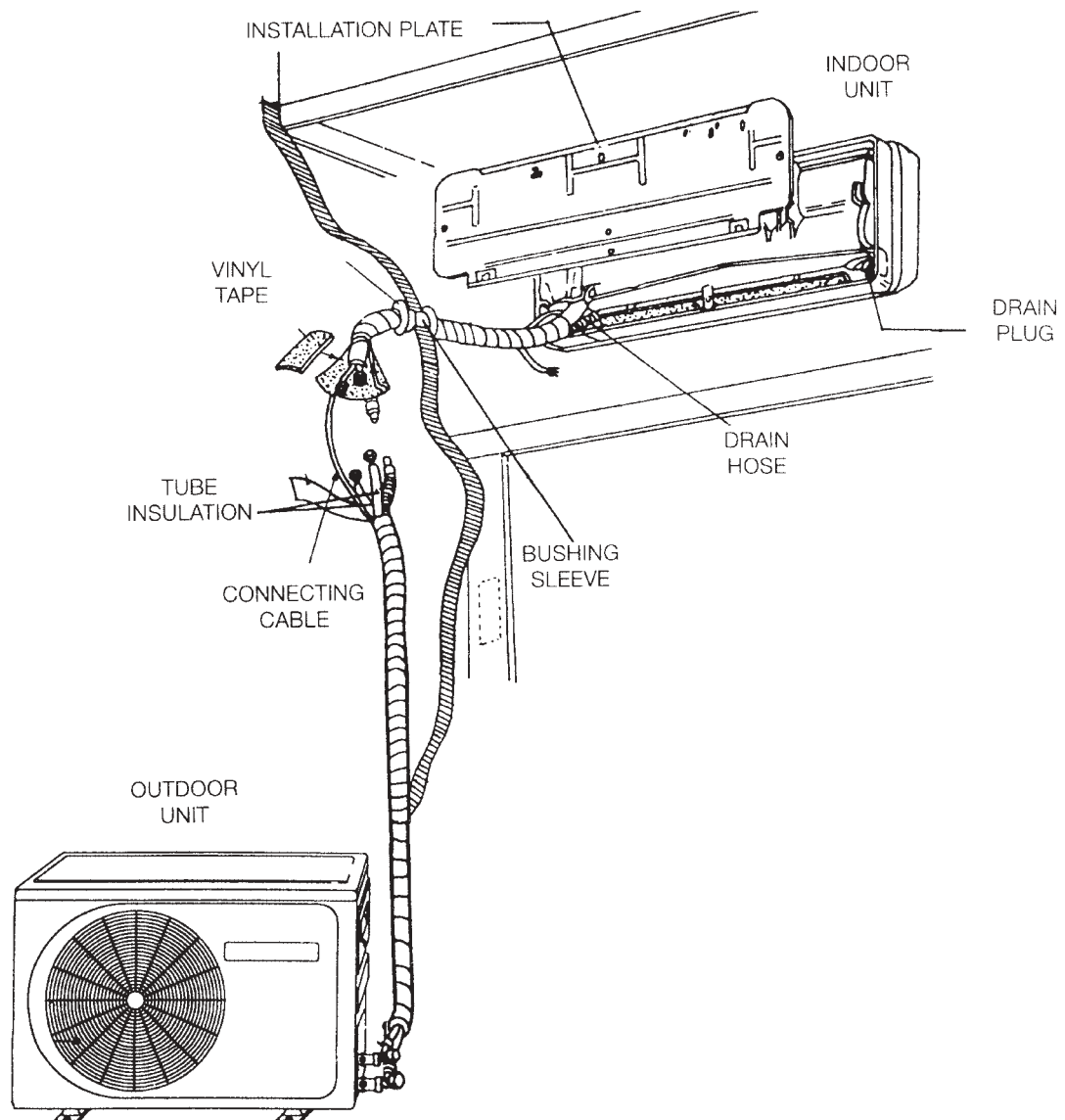
- e) Normally, the R407C cylinder or can is being equipped with a dip-pipe for liquid withdrawal. However, if the dip-pipe is not available, invert the cylinder or can so as to withdraw liquid from the valve at the bottom.



- f) When servicing leak, the top-up method, commonly practiced for R22 system, is not recommended for R407C system. Unlike R22 where the refrigerant is of a single component, the composition of R407C, which made-up of three different components, may have changed during the leak. Consequently, a top-up may not ensure that the R407C in the system is of original composition. This composition shift may adversely affect the system performance. It is recommended that the system should be evacuated thoroughly before recharging with R407C.

Installation

Installation Diagram



CAUTION: Before installing the unit, ensure that the power supply matches the power requirement of the air conditioner.

1) Selection Of Location And Space

(A) INDOOR UNIT

Install the fan coil (indoor) unit at a location with the following requirements

- Location is suitable for wiring, piping and drainage.
- No obstruction of air flow into and out of unit where cooler air can be evenly distributed. (See fig. 1)
- Ensure that air discharge is not short circuited with air intake.
- Ensure that wall is sufficiently strong, rigid, flat, perpendicular and vibration free.
- Where air filter cassette can be slid in or out easily.
- Where there is no danger of flammable gases.
- Where there is no direct sunlight on unit.
- Also to take into consideration a place for the installation of the Wireless LCD Remote Controller.

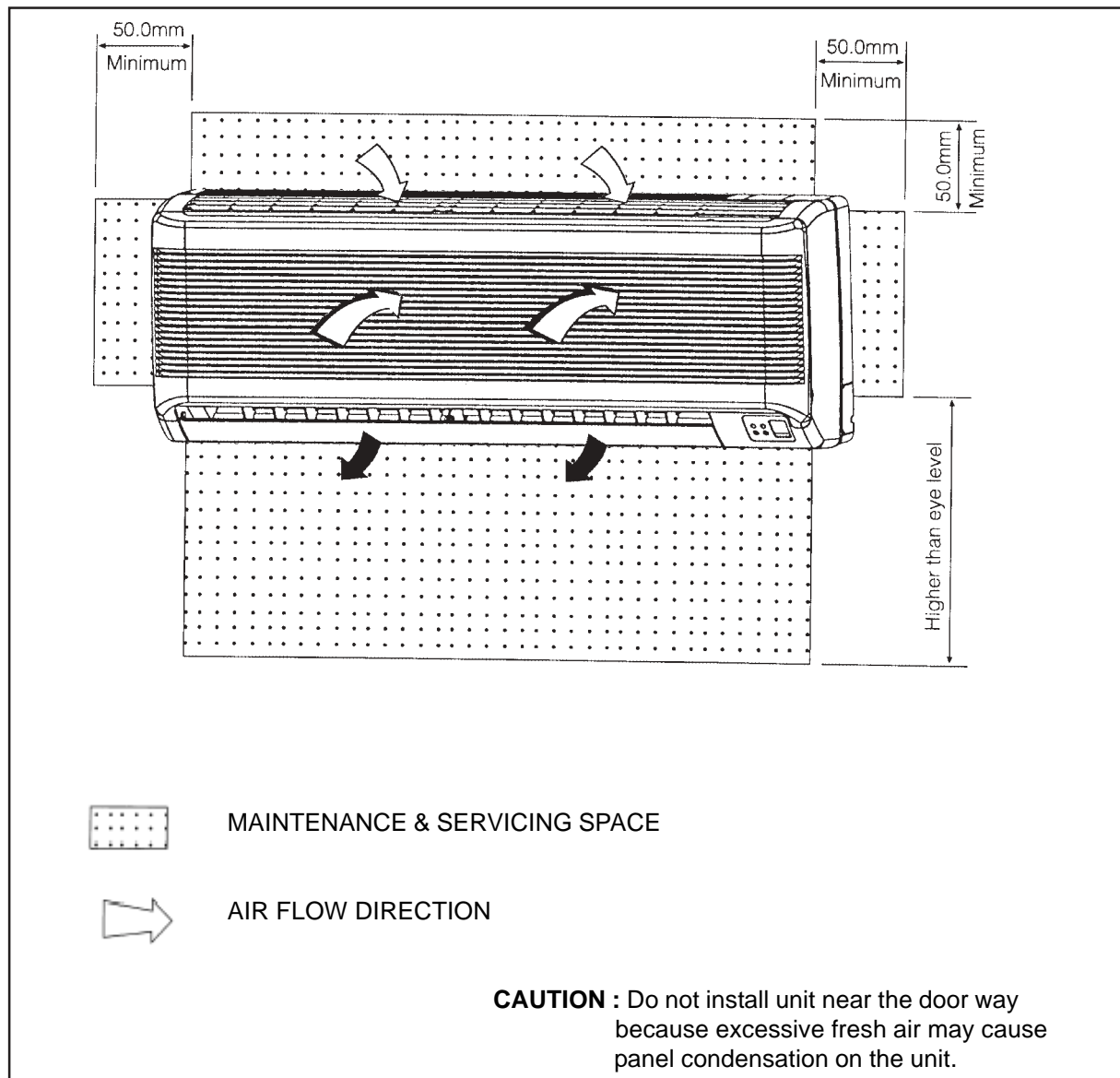
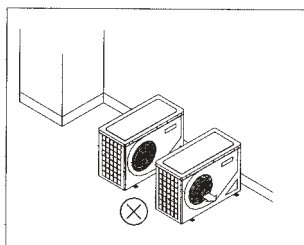
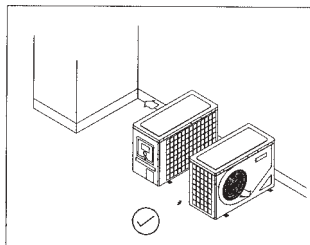


Fig. 1

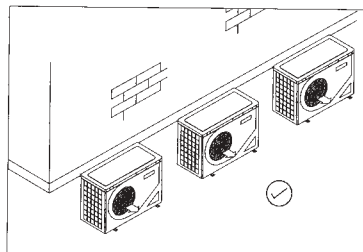
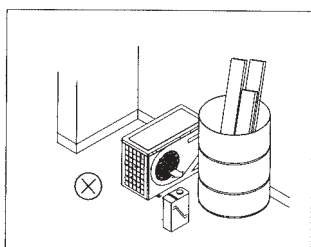
(B) Outdoor Unit

As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected for outdoor unit should fulfill the following requirements :

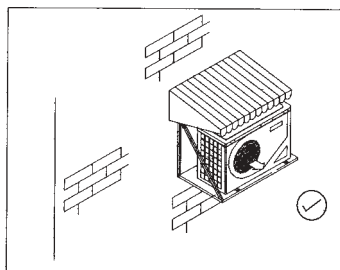
- Install the condensing (outdoor) unit in away such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



- Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacles which block air intake or discharge.
- The location must be well ventilated, so that the unit can draw in and distribute plenty of air thus lowering the condensing temperature.



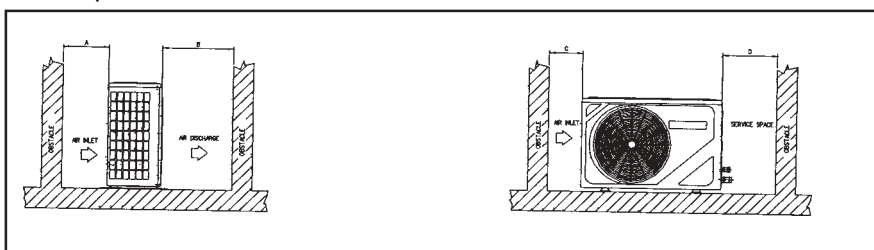
- A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.
- A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.



- The location must not be susceptible to dust or oil mist.

Installation Clearance

- Outdoor units must be installed such that there is no short circuit of the hot discharge air or obstruction to smooth air flow. Select the coolest possible place where intake air should not be hotter than the outside temperature.

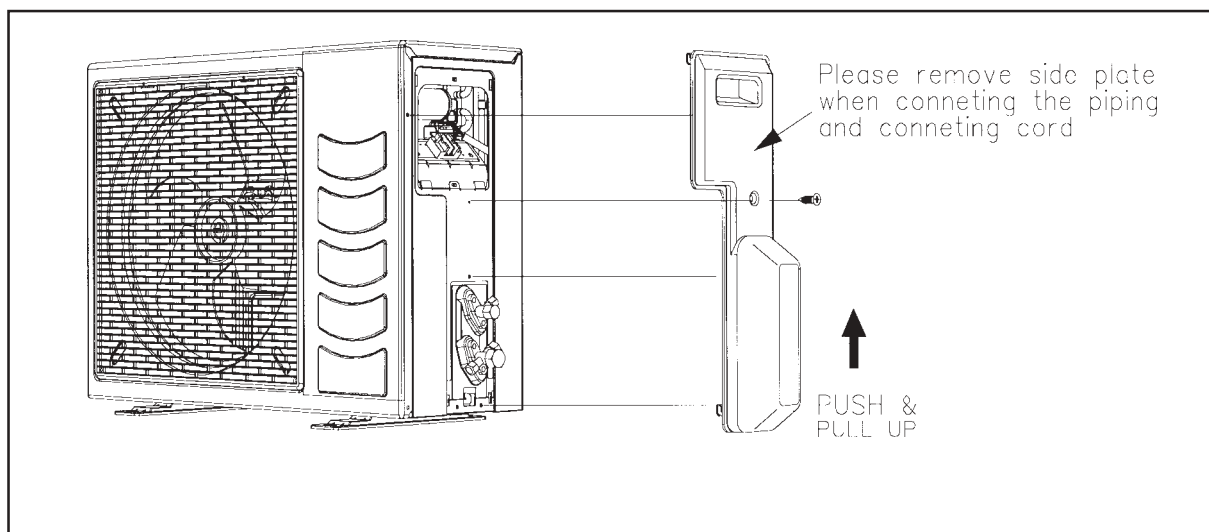
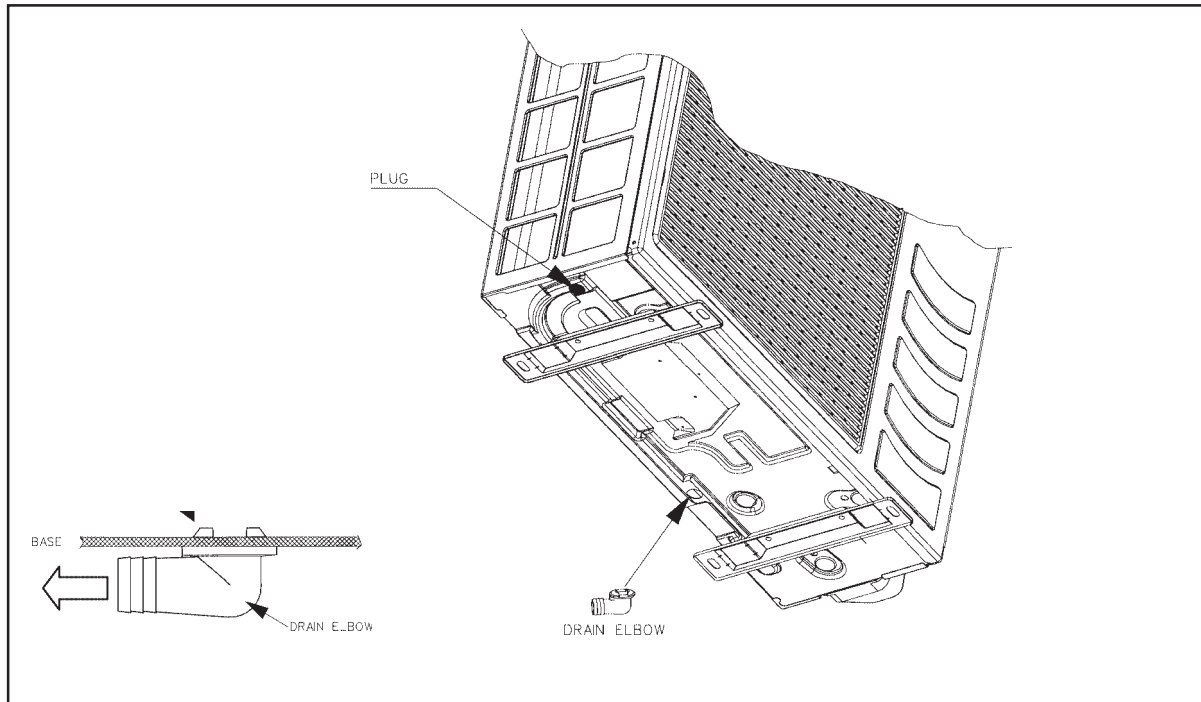


ALL MODELS	A	B	C	D
Minimum Distance	300mm	1000mm	300mm	500mm

CAUTION : If the condensing unit is operated in an atmosphere containing oils(including machine oils), salt(coastal area), sulphide gas(near hot spring, oil refinery plant), such substances may lead to failure of the unit.

Condensed Water Disposal Of Outdoor Unit (Heatpmp Unit Only)

- There are 2 holes on the base of outdoor unit for condensed water to flow out. Insert the drain elbow to one of the holes.
- To install the drain elbow, first insert one portion of the hook to the base (portion A), then pull the drain elbow in the direction shown by the arrow while inserting the other portion to the base. After installation, check to ensure that the drain elbow clings to base firmly.
- If the unit is installed in a snowy and chilly area, condensed water may freeze in the base. In such case, please remove plug at the bottom of unit to smooth the drainage.



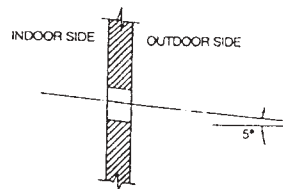
2) Drillings Holes And Mounting Installation Plate

CAUTION:

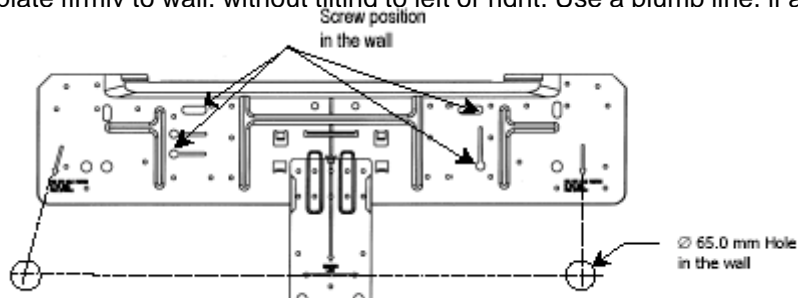
- i) Please check the unit weight for each model. Always ensure that the wall is sufficiently strong to withstand the weight. If not, it is necessary to reinforce the wall with plate, beams or pillars.
- ii) The unit cannot be directly fixed onto the wall or the likes. In all cases, the installation plate provided **MUST** be used.

- Paste the installation plan provided on the desired location on the wall and mark the holes location accordingly.
- Ensure that the minimum maintenance and servicing space at the top, left and right side of the unit is reserved.
- Ensure also the levelness of the installation plate.
- Drill the screw mounting holes (minimum 4 screws are required).
- Drill the pipe hole at the location as per plan. (This is only applicable for rear piping outlet installation).

Note: The hole should be drilled slightly lower at outdoor side as per figure below:-



- Fix the installation plate firmly to wall. without tilting to left or right. Use a plumb line. if available.



- Fixing method:-

WOODEN FRAME WALL	REINFORCED CONCRETE BUILDING	
	NUT ANCHOR	BOLT ANCHOR
<p>WOOD SCREW INSTALLATION PLATE</p>	<p>NUT INSTALLATION PLATE 10mm min</p>	<p>BOLT INSTALLATION PLATE</p>

3) Indoor Unit Preparation

- The refrigerant piping can be routed to the unit in 5 direction, by using the cut outs in the unit casing. (See fig. 1)

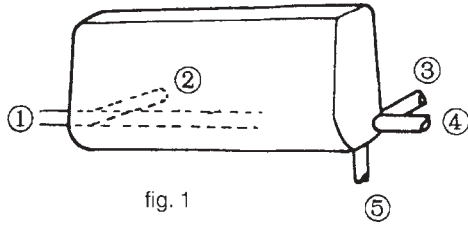


fig. 1

- Carefully bend the pipes to the required position to align with the hole. For right hand and rear side draw out, hold the bottom of the piping and fix direction before shaping it to the desired position (See fig. 2). The condensation drain hose should be taped to the pipes with vinyl tape. The electrical cable can also be taped to the pipes.

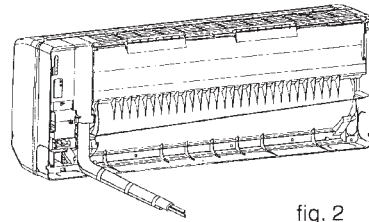
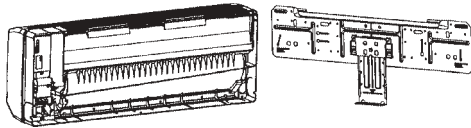


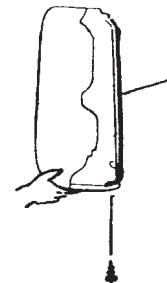
fig. 2

4) Mounting Indoor Unit

Hook the indoor unit onto the upper portion of installation plate. (Engage the 2 hooks of rear top of the indoor unit with the upper edge of the installation plate). Ensure the hooks are properly seated on the installation plate by moving in left and right.



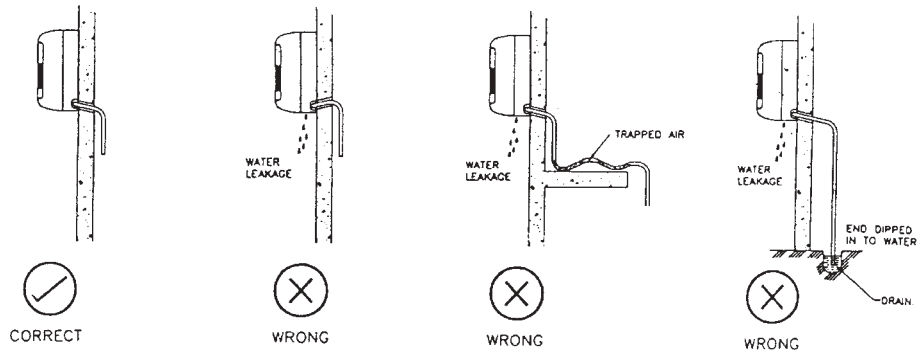
1. Hook the unit into the installation plate.



2. Fix the rivet underneath after completion of installation.

5) Water Drainage Piping

The indoor drain pipe must be downward gradient for smooth drainage. Avoid situation as shown in figure below.



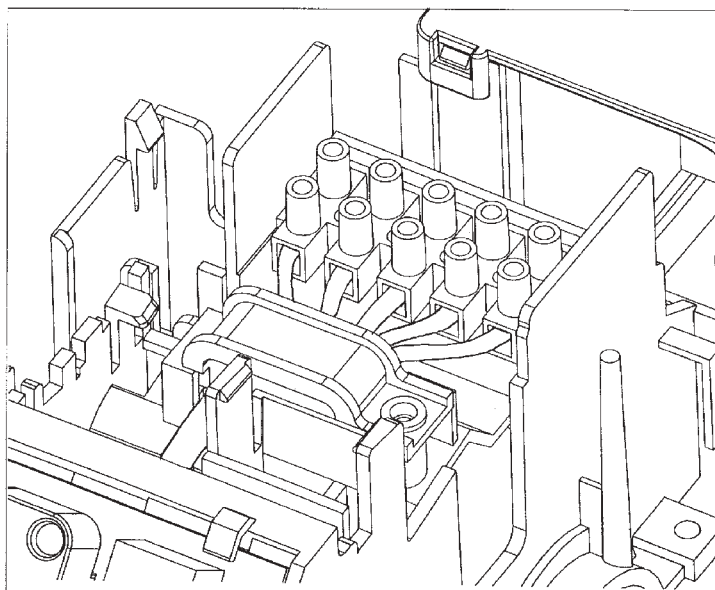
6) Wiring

Electrical Connection

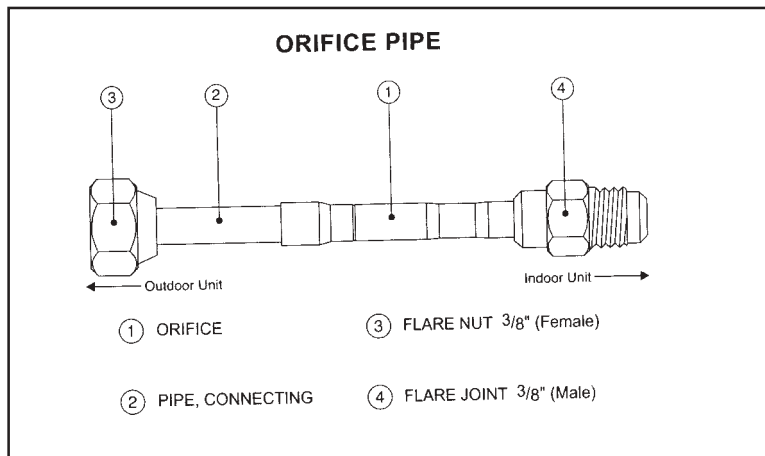
- Wiring regulation on wire diameters differ from country to country. Please refer to your LOCAL ELECTRICAL CODES for field wiring rules. Be sure that installation comply with such rules and regulations.

General Precautions

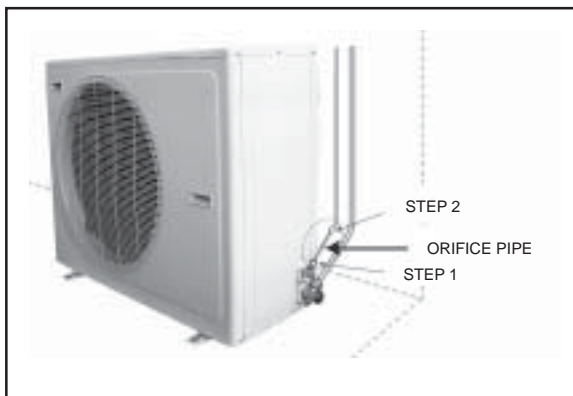
- Ensure that the rated voltage of the unit corresponds to the name plate before carrying out proper wiring according to the wiring diagram.
- Provide a power outlet to be used exclusively for each unit. A power supply disconnect and a circuit breaker for over-current protection should be provided in the exclusive line.
- The unit must be GROUNDED to prevent possible hazards due to insulation failures.
- All wiring must be firmly connected.
- All wiring must not touch the hot refrigerant piping, compressor or any moving parts of fan motors.
- The field wires from the indoor unit must be clamped on the wire clamp as per shown in the figure.



7) Installation Of Separate Orifice Kit At Outdoor



i) Outdoor Unit Installation Space Is Wide Enough

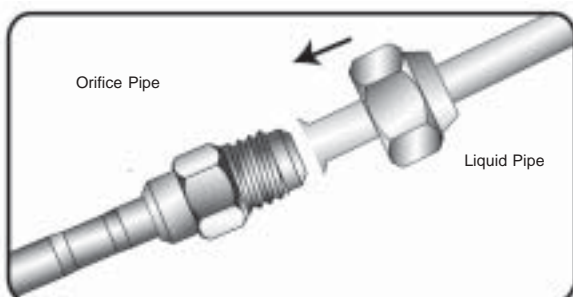


Steps:

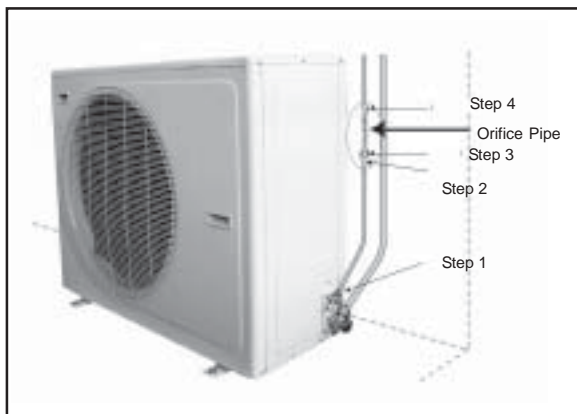
a) Directly connect the "Female" nut of orifice pipe to the liquid pipe.



b) Flare the liquid pipe and connect it to the "Male" joint of the orifice pipe.



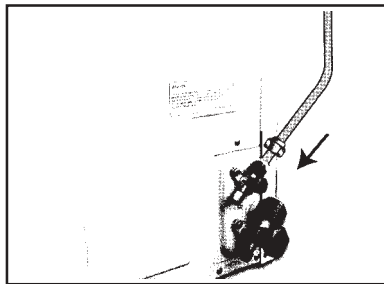
ii) Outdoor Installation Space Is Limited



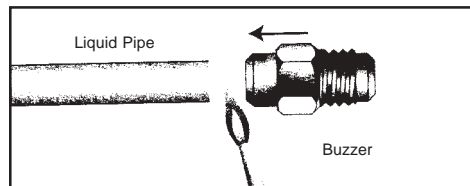
If the orifice pipe cannot be connected directly to the liquid valve due to limitation space, it can be connected between the liquid pipes.

Steps :

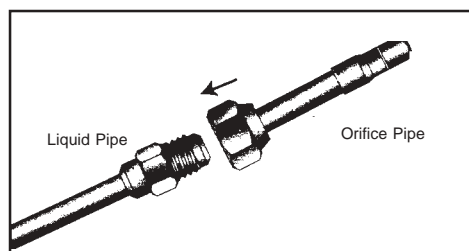
a) Flare the liquid pipe and connect it to the liquid valve.



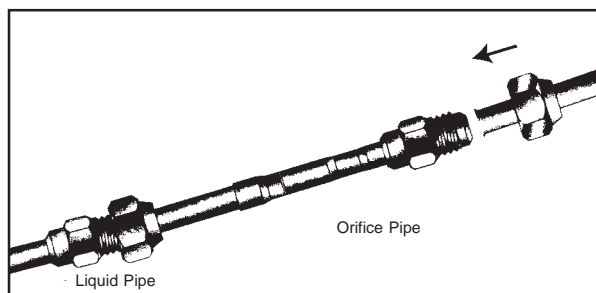
b) Braze an addition "Male" joint to the liquid pipe.



c) Connect the "Female" nut of the orifice pipe to the "Male" joint.



d) Flare another liquid pipe and connect it to the "Male" joint of the orifice pipe.



8) Refrigerant Piping

Maximum Pipe Length And Maximum Number Of Bends

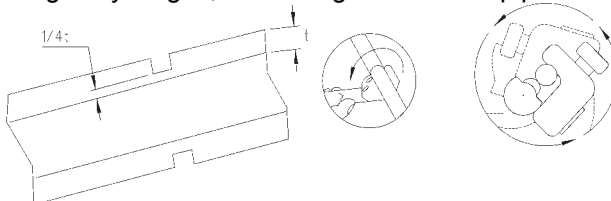
Always choose the shortest path for refrigerant piping and follow the recommendations as tabulated below:

MODEL	MWM 010F/FR	MWM 015F/FR	MWM 020F/FR	MWM 025F/FR	MWM 030F/FR	
DATA					MLC 030B/BR	MLC 030C/CR
Max. Length (m)	12	12	15	15	35	45
Max. Elevation (m)	5	5	8	8	15	25
Max. No of bends	10	10	10	10	10	10

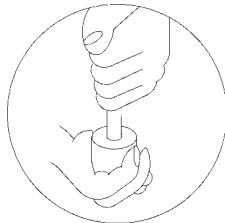
* Need to add external accumulator

Flare Connection

- Cut the pipe stages by stages, advancing the blade of pipe cutter slowly.

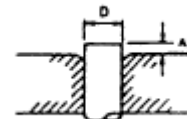


- Remove burr with the burr remover. Hold the flaring end down to prevent burrs from dropping inside pipe.



- The exact length of pipe protruding from the face of the flare die is determined by the flaring tool. The table shows the use of an imperial die and rigid die.

PIPE Ø, D (mm)	A(mm)	
	IMPERIAL DIE	RIGID DIE
6.35(1/4")	1.3	0.7
9.52(3/8")	1.6	1.0
12.7(1/2")	1.9	1.3
15.88(5/8")	2.2	1.7

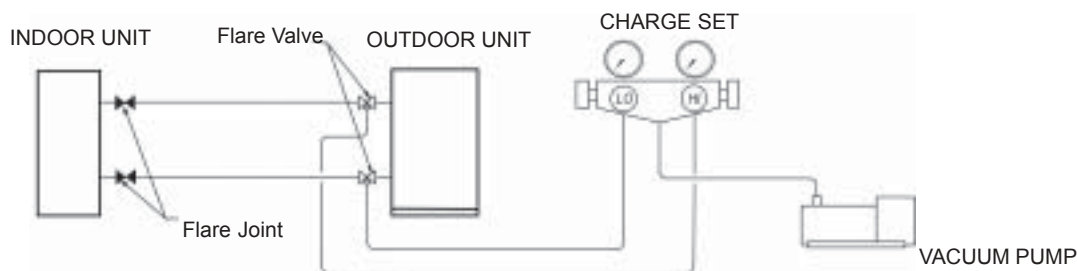


Fix the pipe firmly on the flare die. Match the centers of both the flare die and the flaring punch, and tighten flaring punch fully.

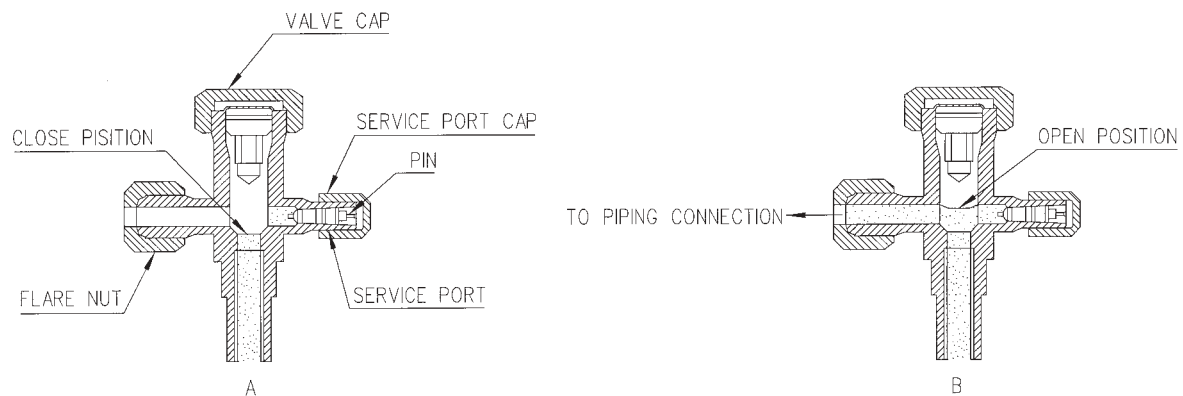
9) Vacuuming And Charging

- The precharged outdoor unit does not need any vacuuming or charging. However once it is connected, the connecting pipe line and the indoor need to be vacuumed before releasing the R22/R407C from the outdoor unit.

- Open the service port core cap.
- Connect pressure gauge to the service port.
- Connect the line to vacuum pump. Open the charging manifold valve and turn the pump on. Vacuum to - 0.1 MPa (-760mmHg) or lower. (Evacuation time varies by the pump but averagely in 1 hour).



4) After evacuation, unscrew the spindle (diagram B) for the gas to run to indoor unit.



5) Decision by low side pressure. Turn compressor on for 10 or 15 min.

	STANDARD CONDITION		HEAVY LOAD CONDITION	
	Indoor 27°C / Outdoor 35°C		Indoor 32°C / Outdoor 43°C	
	kg/cm ²	psig	kg/cm ²	psig
MWM 010F/FR	5.2 ~ 6.0	74.0 ~ 85.0	5.7 ~ 6.4	81.0 ~ 92.0
MWM 015F/FR	4.6 ~ 5.6	65.4 ~ 79.6	5.2 ~ 6.3	74.0 ~ 89.6
MWM 020F/FR	4.6 ~ 5.6	65.4 ~ 79.6	5.2 ~ 6.3	74.0 ~ 89.6
MWM 025F/FR	4.0 ~ 4.8	56.9 ~ 68.3	4.5 ~ 5.0	64.0 ~ 71.1
MWM 030F/FR	4.0 ~ 4.8	56.9 ~ 68.3	4.5 ~ 5.0	64.0 ~ 71.1

Within the value - refrigerant cycle normal.

Lower than value - refrigerant cycle has some leaks - check, amend and top up is necessary.

Extremely low (≒ zero) - needs evacuation and charge.

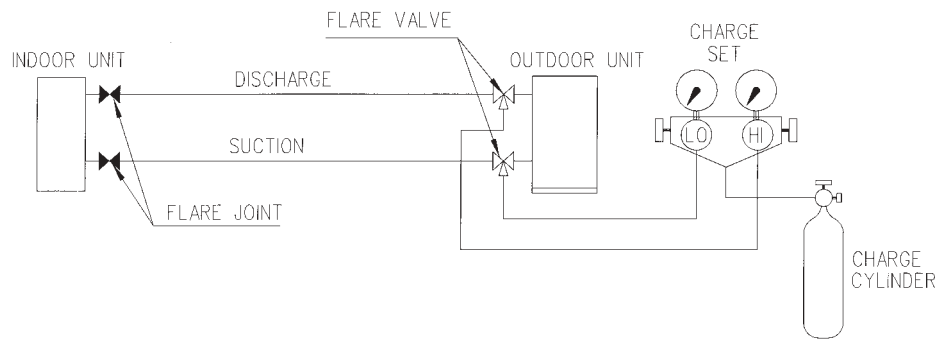
Additional Charge

- The refrigerant gas is charged in the outdoor unit and, if the piping length is 7.6m, additional charge of the refrigerant after vacuuming is not necessary.
- When the piping length is more than 7.6m, please use the table below :

Additional charge in gram.

MODEL	10m	12m	15m	25m	35m
COOLING ONLY					
MWM 010F / 015F	35	65	-	-	-
MWM 020F	35	65	110	-	-
MWM 025F	90	165	280	-	-
MWM 030F	90	165	280	650	1030
HEATPUMP					
MWM 010FR / 015FR	50	90	-	-	-
MWM 020FR	60	110	185	-	-
MWM 025FR	120	220	370	-	-
MWM 030FR	120	220	370	870	1370

Diagram shows typical charging method.



CAUTION FOR R407C

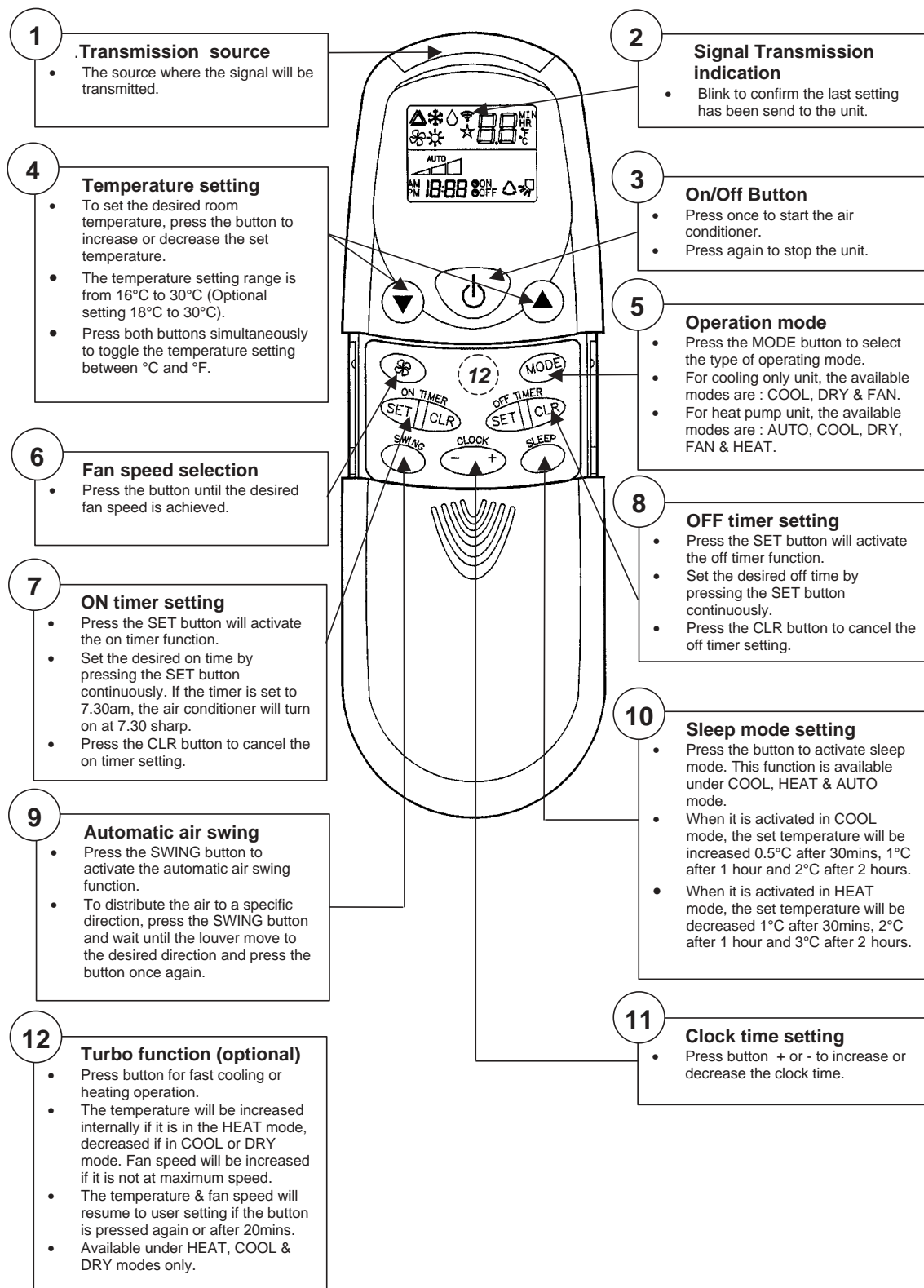
Avoid prolong exposure of an opened compressor, or the internal part of refrigerant piping to moist air. The POE oil in the compressor and piping can absorb moisture from air

10) Final Checking

- Ensure that steps 1 to 9 are closely followed.
- Ensure the following, in particular :
 - 1) The unit is mounted solidly and rigidly in position.
 - 2) Piping and connections are leak proof after charging.
 - 3) Proper wiring has been done.
- Trial run
 - 1) Conduct a trial run after water drainage test and gas leakage test.
 - 2) Watch out for the following :
 - a) Is the electric plug firmly inserted into the socket?
 - b) Is there any abnormal sound from unit?
 - c) Is there any abnormal vibrations with regard to unit itself or pipings?
 - d) Is there smooth drainage of water?
- Check that :
 - 1) Condenser fan is running, with warm air blowing off the condensing unit.
 - 2) Evaporator blower is running and discharging cool air.
 - 3) Suction (Low side) pressure as per recommended.
 - 4) The remote controller incorporate a 3-minute delay in their circuit. Thus, it requires about 3 minutes upon cut off before the outdoor condensing unit can start up.

Remote Controller Operation Guide

G7 Remote Controller



G11 Remote Controller

Temperature Setting

- To set the desired room temperature, press the button to increase or decrease the set temperature.
- The temperature setting range is from 16°C to 30°C
- Press both buttons simultaneously to toggle the temperature setting between °C and °F

On/Off Button

- Green colour for Cooling Only model
- Orange colour for Heatpump model

Personalised Setting

- Press and hold the button for 3s to initiate personalized setting.
- Set the individual setting e.g. MODE, SET TEMP or FAN SPEED and leave for 4s to save
- 2 groups of settings are allowed to stored in the handset

Fan Speed Selection

- Press the button until the desired fan speed is achieved.

Operating Mode

- Press the MODE button to select the type of operating mode.
- For Cooling only unit, the available modes are: COOL, DRY & FAN.
- For Heatpump unit, the available modes are: AUTO, COOL, DRY, FAN & HEAT.

OFF Timer Setting

- Press the SET button will activate the off timer function.
- Set the desired off time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting

Automatic Air Awing

- Press the SWING button to activate the automatic air swing function.
- To distribute the air to a specific direction, press the SWING button and wait until the louver move to the desired direction and press the button once again.

Sleep Mode

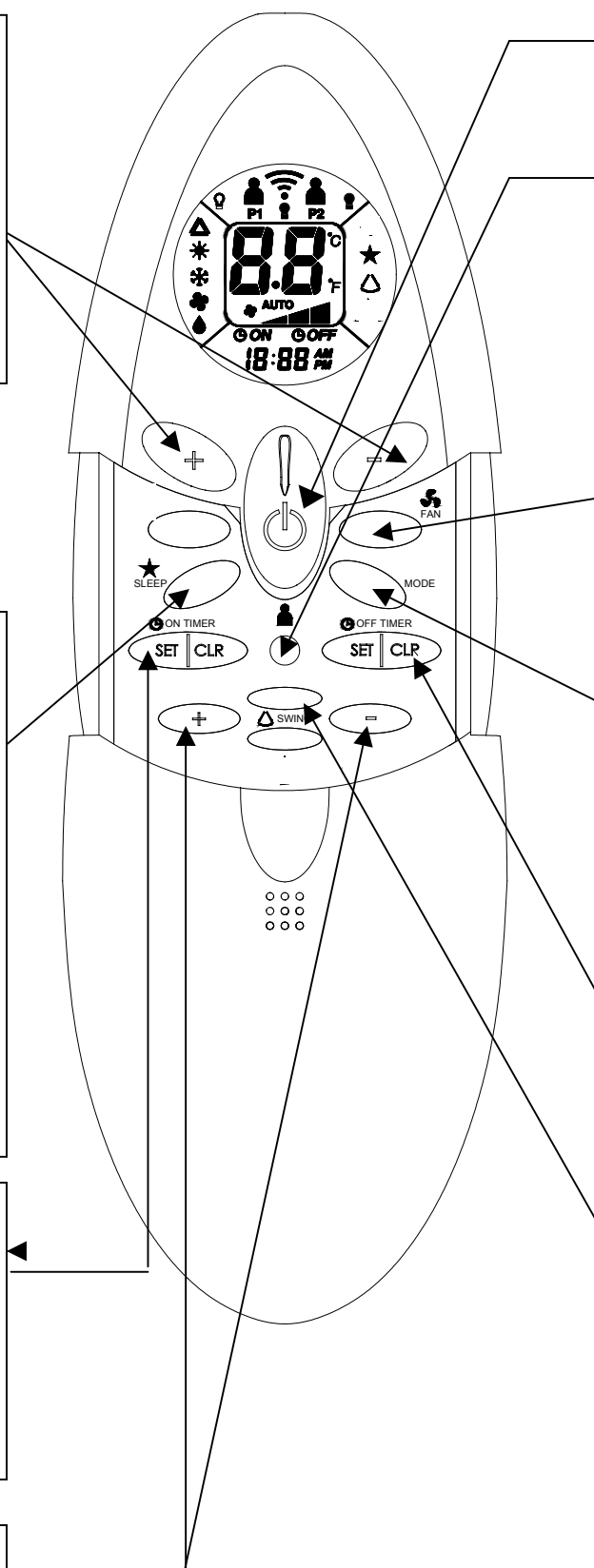
- Press the button to activate sleep mode. This function is available under COOL, HEAT & AUTO mode.
- When it is activated in COOL mode, the set temperature will be increased 0.5°C after 30mins, 1°C after 1 hour and 2°C after 2 hours.
- When it is activated in HEAT mode, the set temperature will be decreased 1°C after 30mins, 2°C after 1 hour and 3°C after 2 hours.

ON Timer Setting

- Press the SET button will activate the off timer function.
- Set the desired on time by pressing the SET button continuously.
- Press the CLR button to cancel the off timer setting

Clock Time Setting

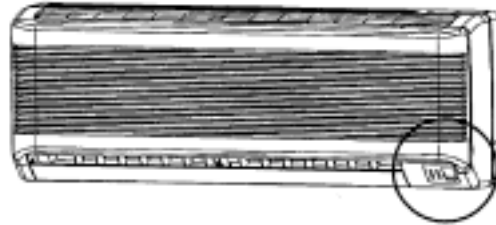
- Press button + or – to increase or decrease the clock time.



Indicator Lights (cooling only unit)

IR signal receiver





When there is infrared remote control operating signal, the signal receiver on indoor unit will make a (beep) for signal acceptance confirmation.







LED Indicator Lights

The table below shows the LED indicator light for air conditioner unit under normal operation and fault condition. The LED indicator lights are located at the right bottom of the air conditioner unit.

Cooling unit : LED Indicator Lights Display






 Timer	 Power on
 Sleep mode	 Dry mode

LED Indicator Lights : Normal Operation And Faulty Indication Table

 Power	 Sleep	 Timer	 Dry	Operation/ Faulty Indication	Action
○		○		Timer on	-
○	○			Sleep mode on	-
○			○	Dry mode	-
● Continuously			○ / ●	Frost prevention mode	Clean the filter and switch to high fan.
● Once every 2 second				Room air sensor contact loose/ short	Call your dealer
●● Twice every 3 sec				Indoor coil sensor contact loose/ short	Call your dealer
●●● 3 Times every 3 sec				Outdoor abnormal operation	Call your dealer






○ ON ○ / ● ON or OFF ● BLINK

Heatpump unit : LED Indicator Lights Display

	Cooling mode (Green)		Dry mode (Orange)	
		Heat / Fan mode (Red/ Green)		Sleep mode (Red)

The heat pump units is equipped with an “auto” mode, whereby the unit will provide reasonable room temperature by switching the unit automatically to either “cool” mode or “heat” mode, according to the temperature setting set by the user.

LED Indicator Lights: Normal Operation And Faulty Indication Table

 Cool	 Dry	 Fan	 Heat	 Sleep	Operation/ Faulty Indicator	Action
○				○ / ●	Cooling mode	-
	○				Dry mode	-
		○			Fan mode	-
			○	○ / ●	Heat mode	-
●			○	○ / ●	Auto mode in heating operation	-
○			●	○ / ●	Auto mode in cooling operation	-
			●		Defrost operation	-
●					Compressor overload protection	Call your dealer
					Indoor coil sensor contact loose/ short	Call your dealer
	●			●	Outdoor coil sensor contact loose/short	Call your dealer
		●			Room air sensor contact loose/short	Call your dealer
●	●				If the system is auto or sleep mode, switch to heat or cool mode and turn off the sleep function, turn off the power supply to reset the system, wait for 3 minutes and on the system again.	
●	●				If the system is in cool or heat mode (with the sleep function off), the sensor may have contact problem, compressor overload protection trip or gas leak.	

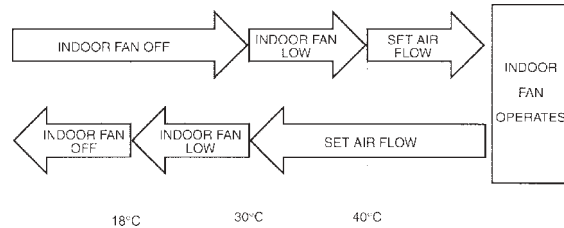
○ ON ○ / ● ON or OFF ● BLINK

Special Function

(A) 3 Hot System (Heating cycle)

a) Hot start

At the beginning of heating operation (cold start, after defrosting or thermostat resumes operation) the indoor fan operation is controlled in accordance with the temperature of the indoor heat exchanger to send warm air from the start.

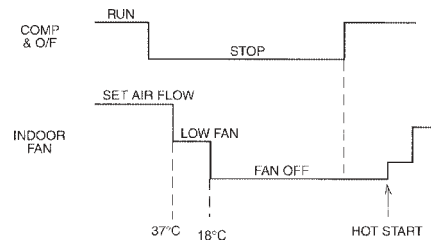


b) Hot keep

After thermostat cut out, the indoor fan operation is controlled in accordance with the indoor heat exchanger temperature to utilize the extra heat and preserve indoor comfort.

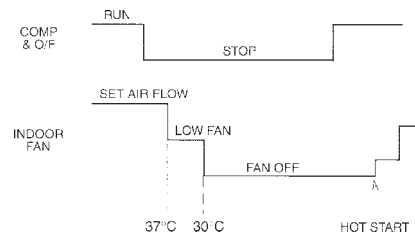
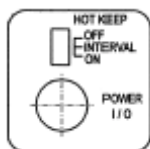
Note 1 : Fan ON

Specification for standard unit.

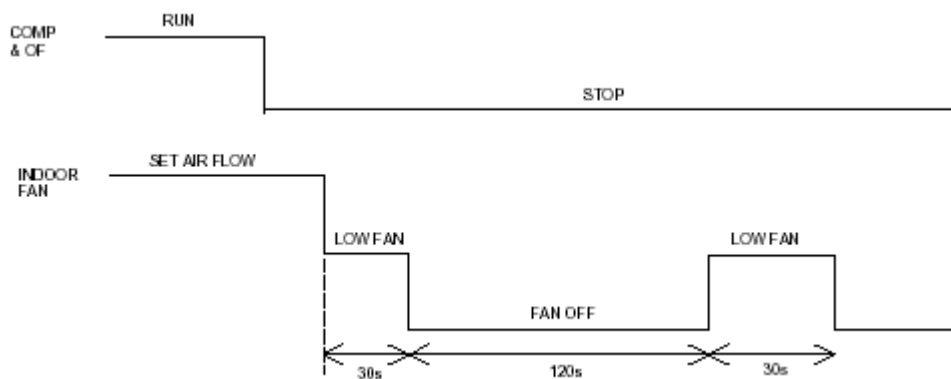


Note 2: Fan OFF

This specification can be done by taking out the shunt jumper cap indicated by 'HOT KEEP' on the front frame panel.

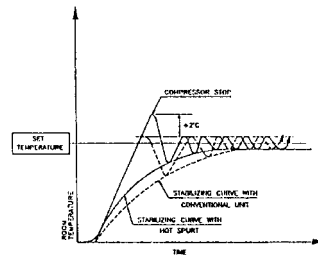


Note 3 : Interval



c) Hot spurt

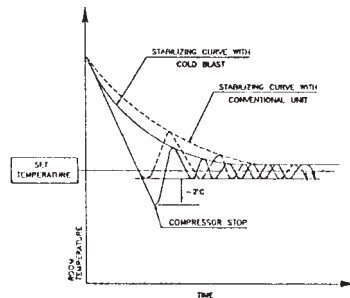
During cold start, the set temperature of controller is increased by 2°C to stabilize the room temperature quickly.



After the first stop of compressor or 30 minutes following the start of operation, the temperature setting will be restored to the original value.

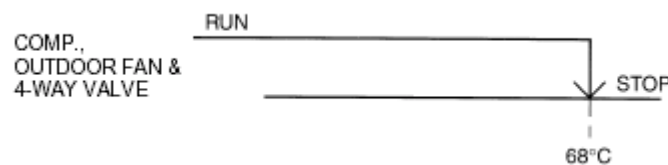
(B) Cold Blast (Cooling cycle)

During cold start, the set temperature of controller is decreased by 20°C to stabilize the room temperature quickly.



(C) Overload Prevention In Heating Operation

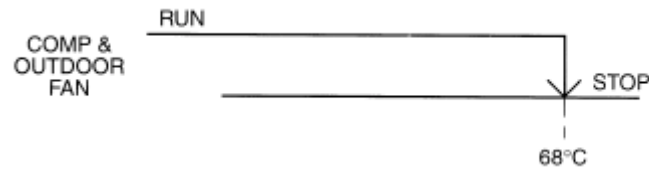
During heating operation, if the room temperature and outdoor temperature are high, or when the indoor air filter is choked, the condensing pressure will increase rapidly. To prevent the burn out of compressor, the M. C. controller will stop the operation of the air conditioner under this condition.



- For manual reset type, the ON / OFF button must be pressed to reset the system.

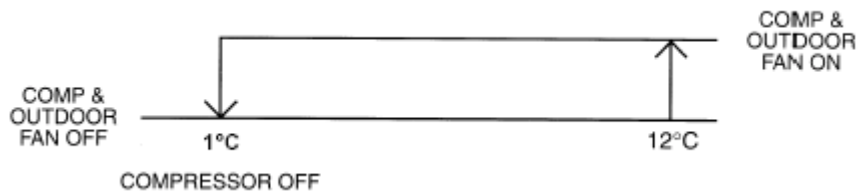
(D) Overload Protection In Cooling Operation

When outdoor and indoor air temperature raise beyond the operation limit, or when the outdoor coil choked with dirt, the M.C. controller detects abnormal increase in condensing temperature. It will stop the operation to prevent compressor burn out.



(E) Frost Prevention And Filter Check

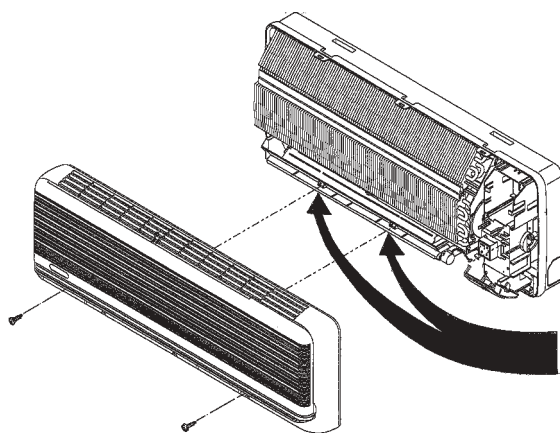
In order to prevent the freezing of indoor coil, the controller will operate as follow.



(F) Auto Random Restart

When power resumed, the unit will automatically restart and operate at the previous setting as before power failure occurred. (Remove jumper at JP1 will cancel the auto random restart function. Please refer to wiring diagram for the location of the JP1).

Servicing And Maintenance



CAUTION:

After installing or servicing the unit, please ensure that the front panel is secured by the 1 hook underneath the front panel.

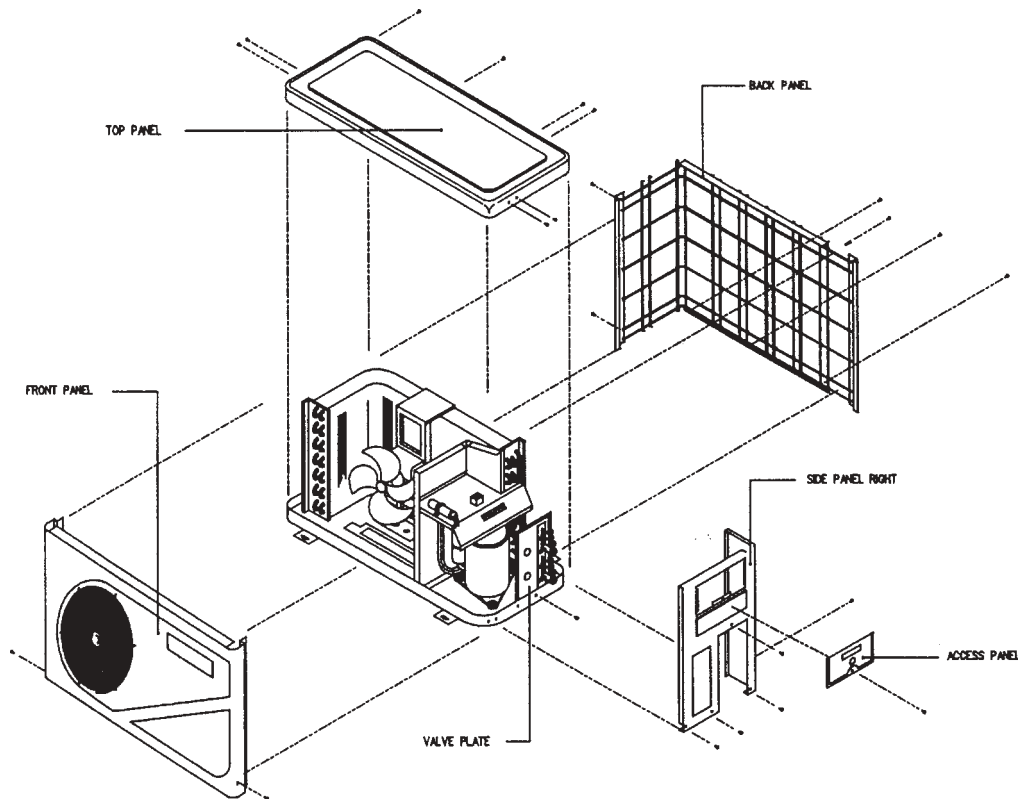
The unit is designed to give a long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedure	Recommended Schedule
Air filter	<ol style="list-style-type: none"> 1. Clean with a vacuum cleaner, or by tapping lightly and then washing in lukewarm water (below 40°C) with a neutral soap. 2. Rinse well to dry before re-installing. 3. Note: Never use petrol thinner, benzene or any other chemicals. 	Every 2 weeks. More frequently if required.
Indoor unit	<ol style="list-style-type: none"> 1. Clean away dirt or dust on grille or panel by wiping with soft cloth soaked in lukewarm (or cold) water or neutral detergent solution. <p>Note : Never user petrol, thinner, benzene or other volatile chemicals, which may cause plastic surface to deform.</p>	Every 2 weeks. More frequently if required
Condense Drain Pan & Pipe	<ol style="list-style-type: none"> 1. Check and clean. 	Every 3 months.
Indoor Fan	<ol style="list-style-type: none"> 1. Check for unusual noise. 	If necessary.
Indoor/ Outdoor Coil	<ol style="list-style-type: none"> 1. Check and remove dirt which are clogged between fins. 2. Check and remove any obstacles which hinder air flow through the indoor / outdoor unit. 	Every month. Every month
Electrical	<ol style="list-style-type: none"> 1. Check voltage, current and wiring. 2. Check faulty contacts caused by loose connections, foreign matters, etc. 	Every 2 months. Every 2 months
Compressor	No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joint and fitting.	Every 6 months.
Compressor Lubrication	<ol style="list-style-type: none"> 1. Oil is factory charged. Not necessary to add oil if circuit remains sealed. 	No maintenance required.
Fan Motor Lubrication	<ol style="list-style-type: none"> 1. All motors are pre-lubricated and sealed at factory. 	No maintenance required.

Pre-Start Up Maintenance (After Extended Shutdown)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensate drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

The design of the MLC outdoor series allows servicing to be carried out readily and easily. The removal of the top side, front and back panel make almost every part accessible.



Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once quarterly. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.

CAUTION!

Do not charge OXYGEN, ACETYLENE OR OTHER FLAMMABLE and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.

It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

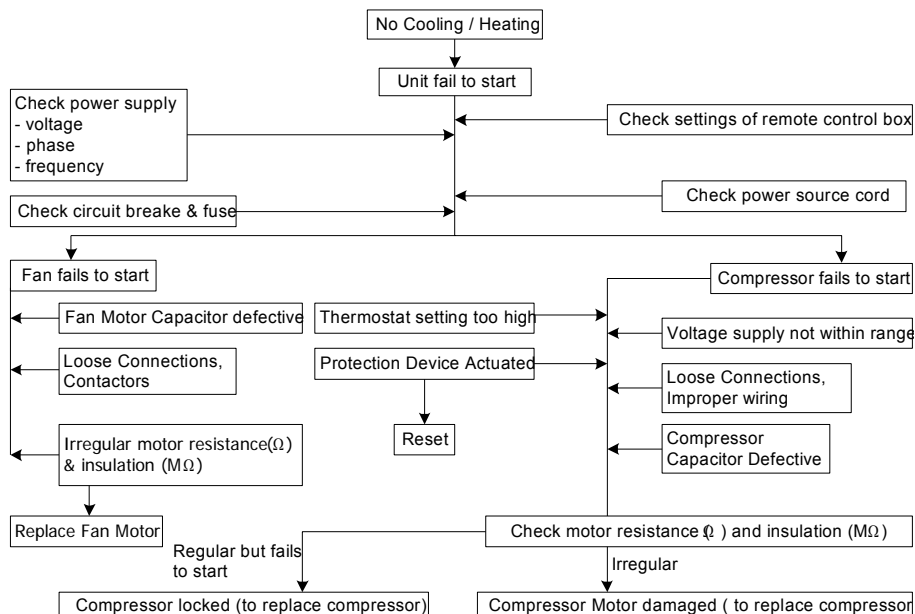
By means of pressure readings :

PRESSURE						PROBABLE CAUSE
Data Circuit	Too Low	A Little Low	Normal	A Little High	Too High	
High Side Low Side					• •	1. Overcharged with refrigerant. 2. Non-condensable gases in refrigerant circuit (e.g.oil) 3. Obstructed air-intake / discharge. 4. Short circuiting of hot air outdoor unit.
High Side Low Side	•				•	1. Poor compression/ no compression (compressor defective). 2. Check valve stick in open position. 3. Reversing valve leaking.
High Side Low Side	•	•				1. Undercharged with refrigerant. 2. Refrigerant leakage. 3. Air filter clogged/ dirty (indoor unit). 4. Indoor fan locked. 5. Defective defrost control, outdoor coil freeze up (heating). 6. Outdoor fan locked (heating).
High Side Low Side				•	•	1. Outdoor fan blocked (cooling). 2. Outdoor coil dirty (cooling). 3. Indoor fan locked (heating). 4. Indoor filter clogged/ dirty (heating). 5. Non-condensable gases in refrigerant circuit (e.g. air)
High Side Low Side				•	•	1. Air intake temperature of indoor unit too high.

BY MEANS OF DIAGNOSIS FLOW CHART

Generally, there are two kinds of troubles, i.e. starting failure and insufficient cooling/heating. “Starting Failure” is caused by electrical defect while “Insufficient Cooling/Heating” is caused by improper

1. Diagnosis Of Electric Circuit

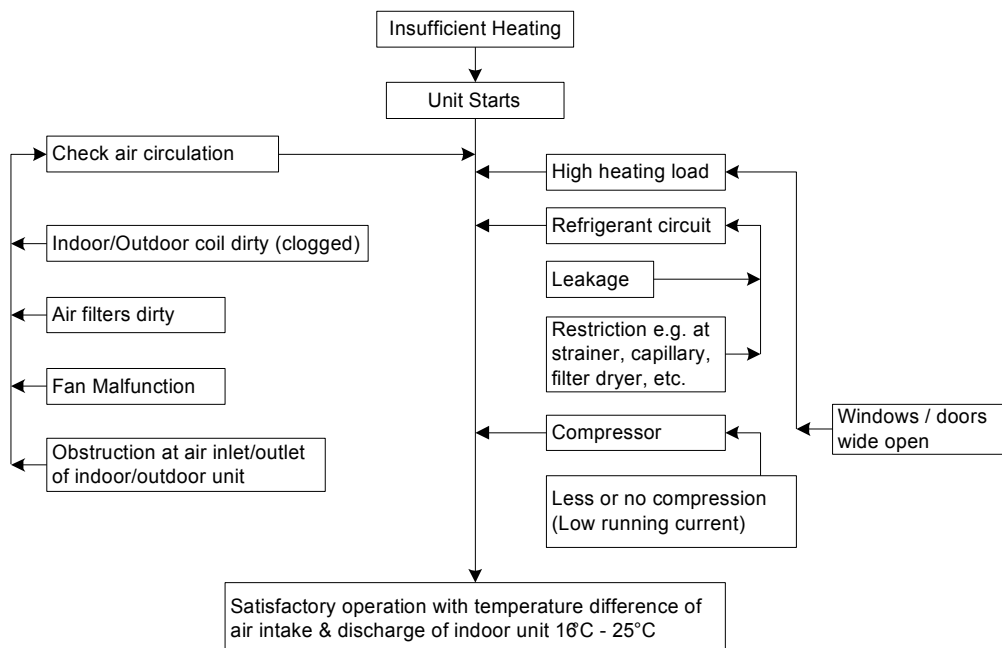
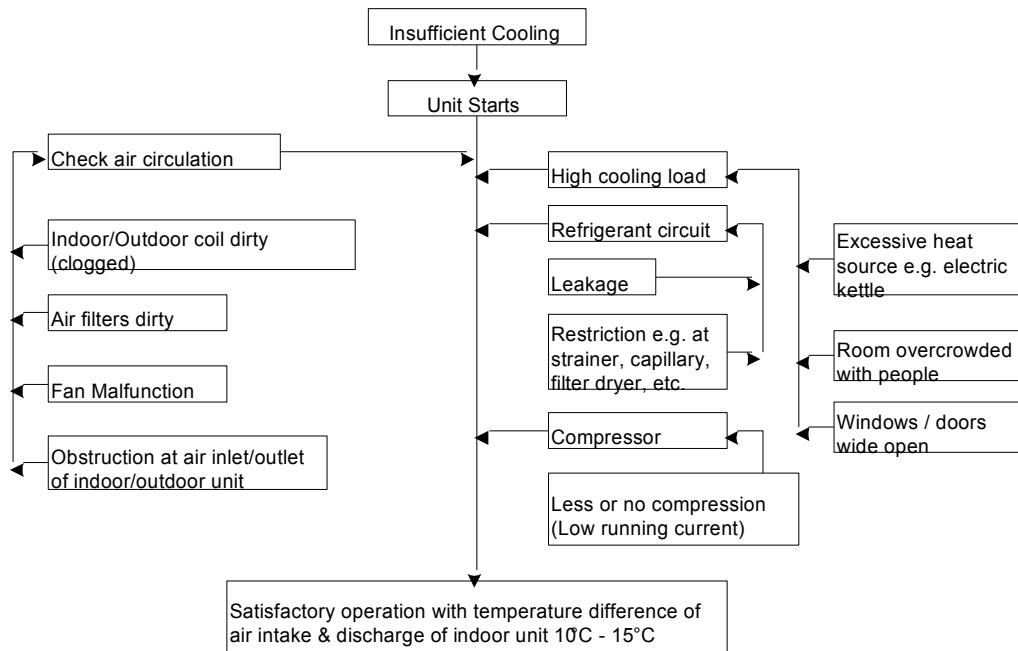


The most common causes of air conditioner failure to “start” are :

- a) Voltage not within +/- 10% of rated voltage.
- b) Power supply interrupted.
- c) Control settings improper
- d) Air Conditioner is disconnected from main power source.
- e) Fuse blown or circuit breaker off.

ii) Diagnosis Of Refrigerant Circuit /Application

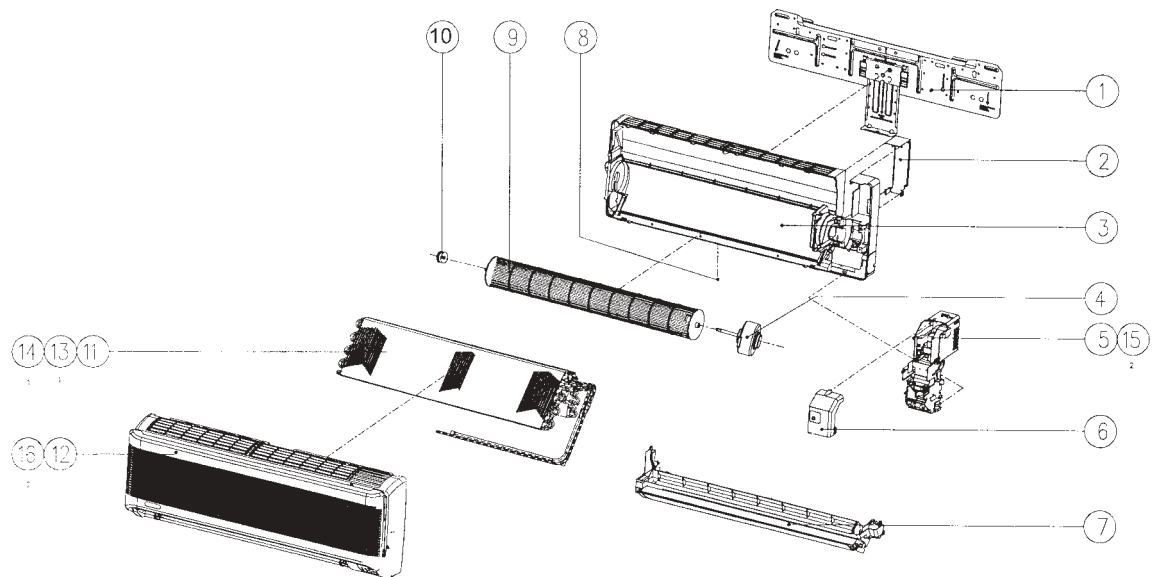
There might be some cases where the unit starts running but does not perform satisfactory, i.e. insufficient cooling. Judgement could be made by measuring temperature difference of indoor unit's intake and discharge air as well as running current.



Parts List

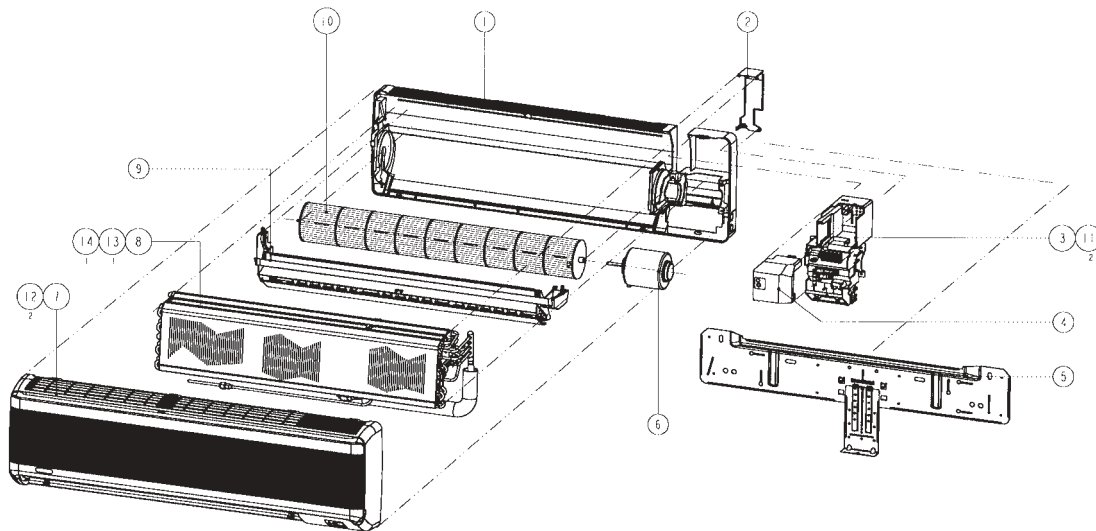
Indoor Unit

Model : MWM 010F / 010FR / 015F / 015FR



1. ASSY. MOUNTING PLATE	10. BUSH, FAN
2. CLAMP. PIPING	11. ASSY. EVAPORATOR COIL
3. ASSY. CHASIS	12. ASSY. FRONT FRAME A
4. ASSY. FAN MOTOR	13. WASHER, INT TEETH STAR
5. ASSY. CONTROL BOX	14. SCREW, PAN HEAD MACHINED
6. ASSY. COVER CONTROL BOX	15. SCREW, SELF TAPPING ROUND HEAD
7. ASSY. AIR DISCHARGE HOUSING	16. SCREW, SELF TAPPING PAN HEAD
8. RIVET	
9. FAN, CROSS FLOW	

Model : MWM 020F / 020FR / 025F / 025FR / 030F / 030FR



1. ASSY. CHASIS

2. PIPING, CLAMP

3. ASSY. CONTROL BOX

4. ASSY. CONTROL BOX COVER

5. ASSY. MOUNTING PLATE

6. ASSY. FAN MOTOR

7. ASSY. FRONT COVER

8. ASSY. EVAPORATOR COIL

9. ASSY. AIR DISCHARGE HOUSING

10. CROSS FLOW FAN

11. SCREW, SELF TAPPING ROUND HEAD

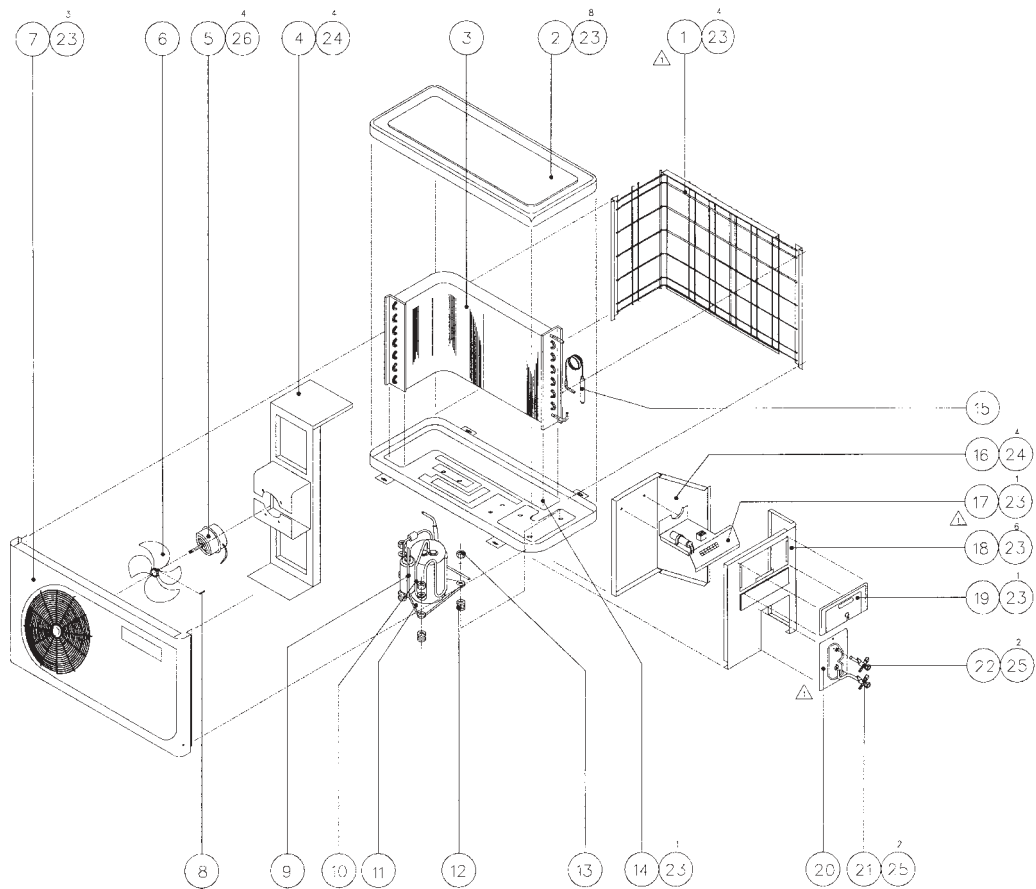
12. SCREW, SELF TAPPING PAN HEAD

13. WASHER, INT. TEETH STAR

14. SCREW, PAN HEAD MACHINED

Outdoor Unit

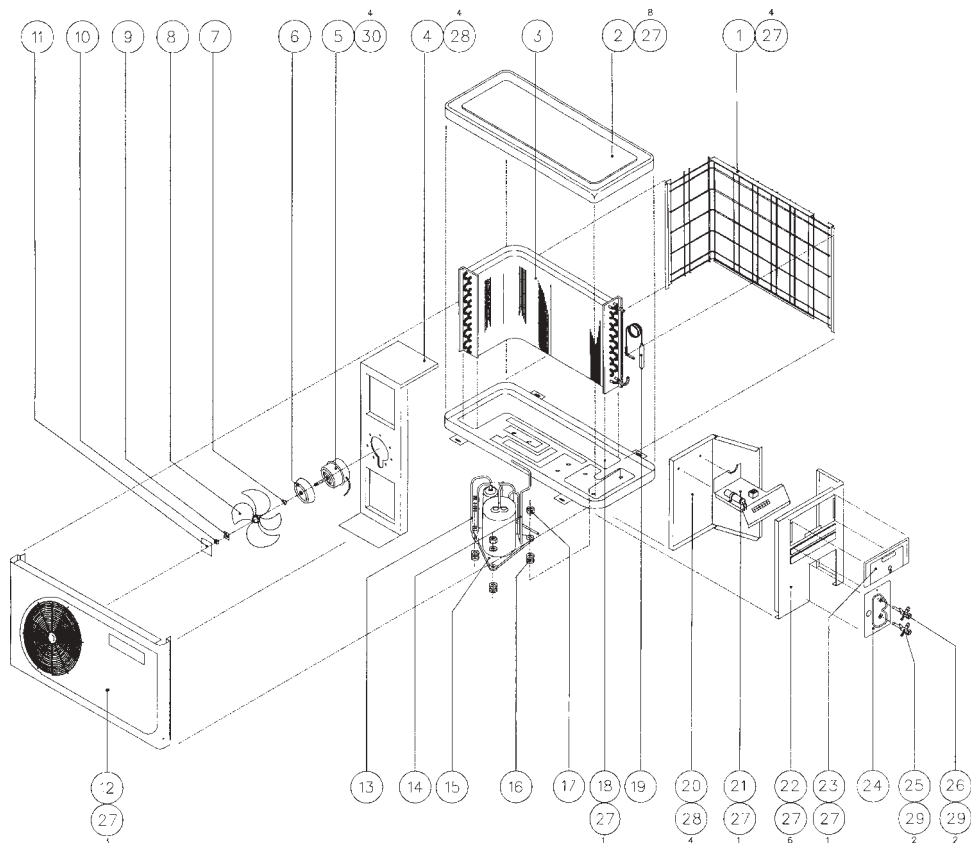
Model : M4LC 007B / 010B / 015B



1. ASSY., BACK PANEL
2. ASSY., TOP PANEL
3. ASSY., CONDENSER COIL
4. BRACKET, MOTOR MOUNTING
5. FAN MOTOR
6. FAN, 14"
7. ASSY., FRONT PANEL
8. SCREW, FAN SET
9. TUBE, SUCTION
10. TUBE, DISCHARGE
11. ROTARY COMPRESSOR
12. GROMMET, RUBBER
13. NUT, WITH WASHER

14. ASSY., BASE PAN
15. ASSY., CAPILLARY TUBE
16. ASSY., PARTITION
17. ASSY., TERMINAL PANEL W/O CONT.
18. ASSY., SIDE PANEL
19. PANEL, ACCESS
20. PLATE, FLARE VALVE
21. VALVE, SUCTION
22. VALVE, LIQUID
23. SCREW, TRUSS HEAD PHILIP
24. SCREW, PAN HEAD TAPPING
25. SCREW, ROUND HEAD PHILIP
26. SCREW, TRUSS HEAD PHILIP

Model : MLC 020B / 025B
M4LC 020B / 025B



1. ASSY., BACK PANEL

2. ASSY., TOP PANEL

3. ASSY., CONDENSOR COIL

4. BRACKET, MOTOR MOUNTING

5. MOTOR, FAN

6. FLINGER

7. WASHER, RING

8. FAN, 16"

9. WASHER, SQUARE

10. HEX. NUT

11. LABEL, BLACK

12. ASSY., PANEL FRONT

13. ASSY., SUCTION TUBE

14. ASSY., DISCHARGE TUBE

15. ROTARY COMPRESSOR

16. GROMMET, RUBBER

17. NUT, WITH WASHER

18. ASSY., BASE PAN

19. ASSY., CAPILLARY TUBE

20. ASSY., PARTITION

21. ASSY., TERMINAL BOX PANEL W/O CONT.

22. ASSY., SIDE PANEL

23. ASSY., ACCESS PANEL

24. PLATE, FLARE VALVE

25. VALVE, SUCTION

26. VALVE, LIQUID

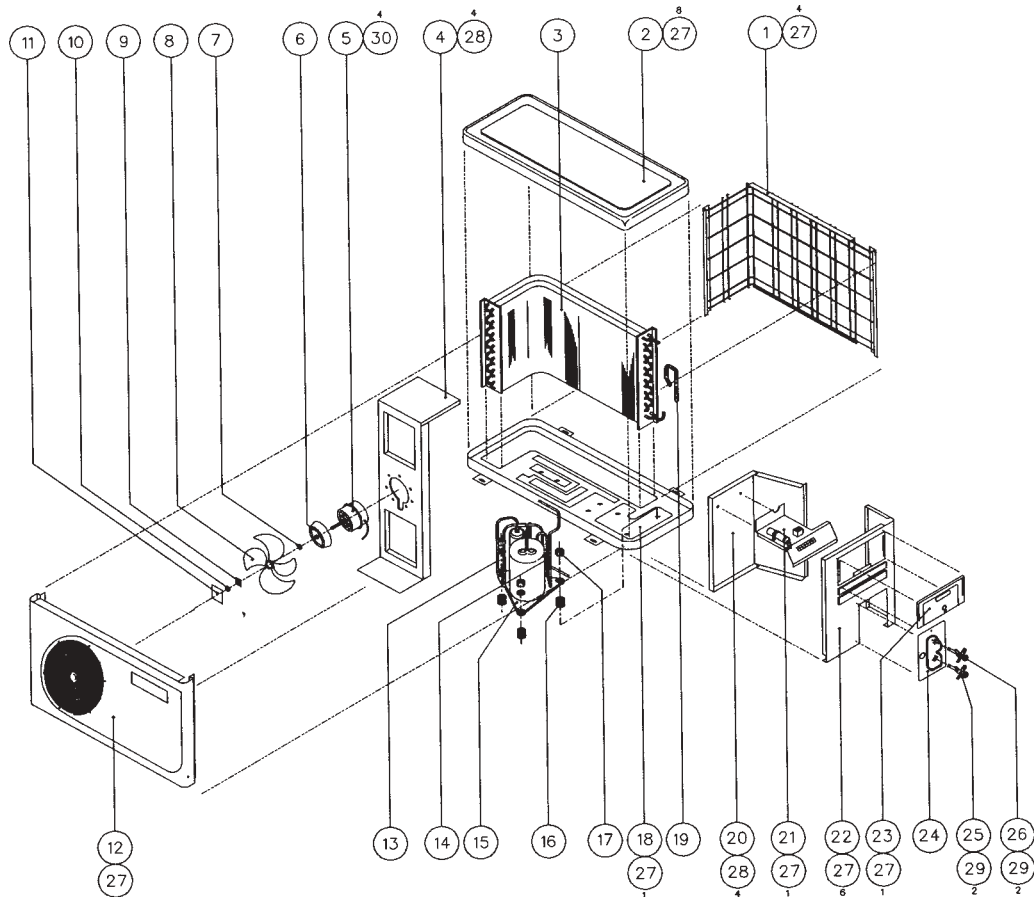
27. SCREW, TRUSS HEAD PHILIP

28. SCREW, PAN HEAD PHILIP

29. SCREW, ROUND HEAD PHILIP

30. SCREW, TRUSS HEAD PHILIP

Model : MLC 030B



1. ASSY., BACK PANEL

2. ASSY., TOP PANEL

3. ASSY., CONDENSOR COIL

4. BRACKET, MOTOR MOUNTING

5. MOTOR, FAN

6. FLINGER

7. WASHER, RING

8. FAN BLADE 16"

9. WASHER, SQUARE

10. HEX. NUT

11. LABEL, BLACK

12. ASSY., PANEL FRONT

13. ASSY., SUCTION TUBE

14. ASSY., DISCHARGE TUBE

15. ROTARY COMPRESSOR

16. GROMMET, RUBBER

17. NUT, WITH WASHER

18. ASSY., BASE PAN

19. TUBE, COIL TO DISCHARGE VALVE

20. ASSY., PARTITION

21. ASSY., TERMINAL BOX PANEL W/O CONT.

22. ASSY., SIDE PANEL

23. ASSY., ACCESS PANEL

24. PLATE, FLARE VALVE

25. VALVE FLARE C/W ACC. 5/8"

26. VALVE, FLARE C/W ACC. (3/8")

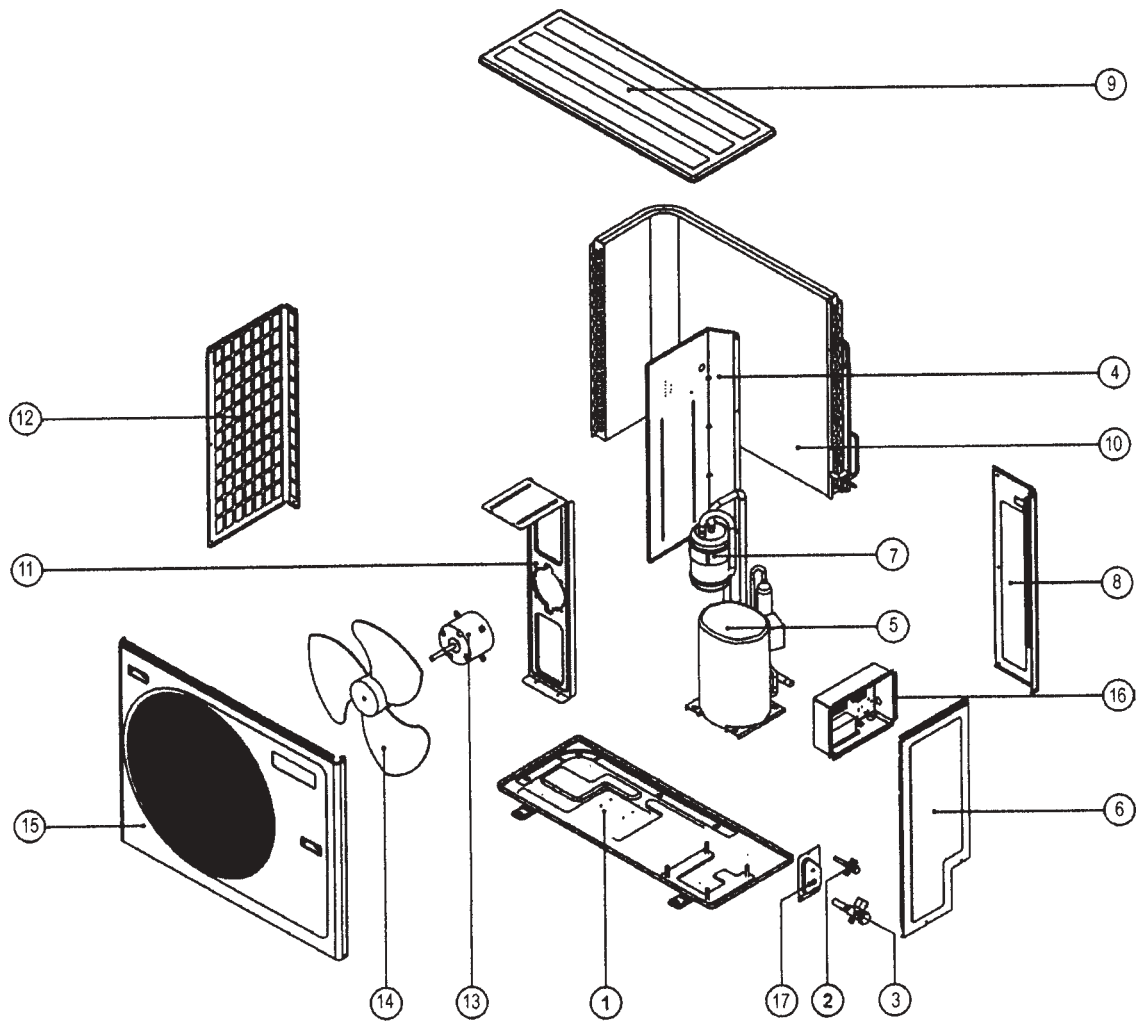
27. SCREW, TRUSS HEAD PHILIP

28. SCREW, PAN HEAD PHILIP

29. SCREW, ROUND HEAD PHILIP

30. SCREW, TRUSS HEAD PHILIP

Model : MLC / M4LC 030C



1. BASE PAN

2. FLARE VALVE

3. FLARE VALVE

4. PARTITION

5. COMPRESSOR

6. ACCESS PANEL

7. ACCUMULATOR

8. BACK PANEL

9. TOP PANEL

10. COIL ASSY

11. MOTOR BRACKET ASSY

12. SIDE PANEL LEFT

13. FAN MOTOR

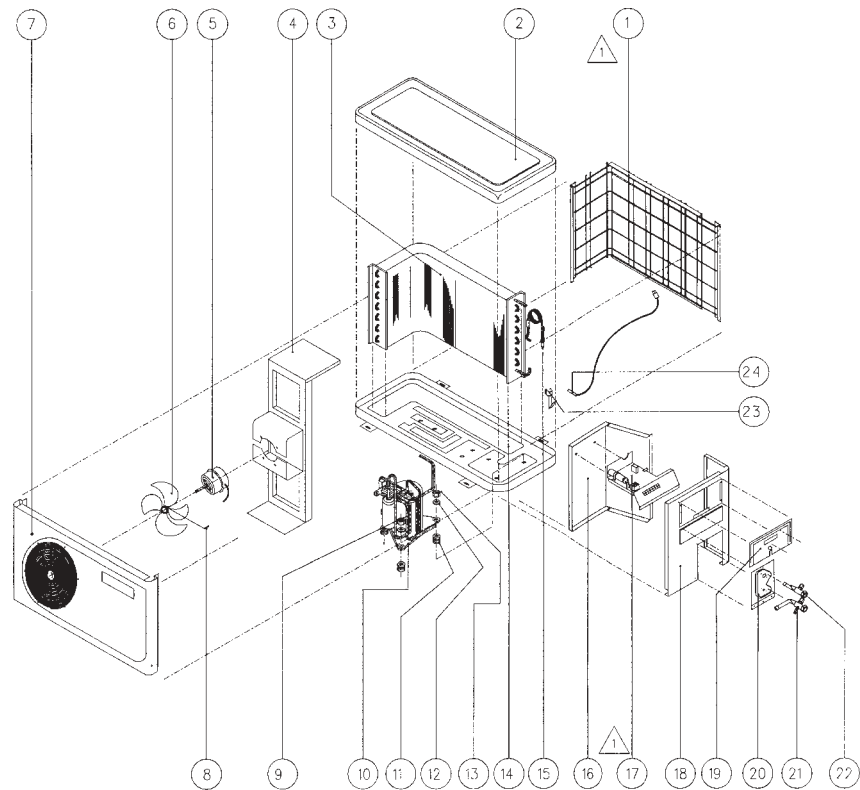
14. FAN BLADE

15. FRONT PANEL ASSY

16. TERMINAL BOX ASSY

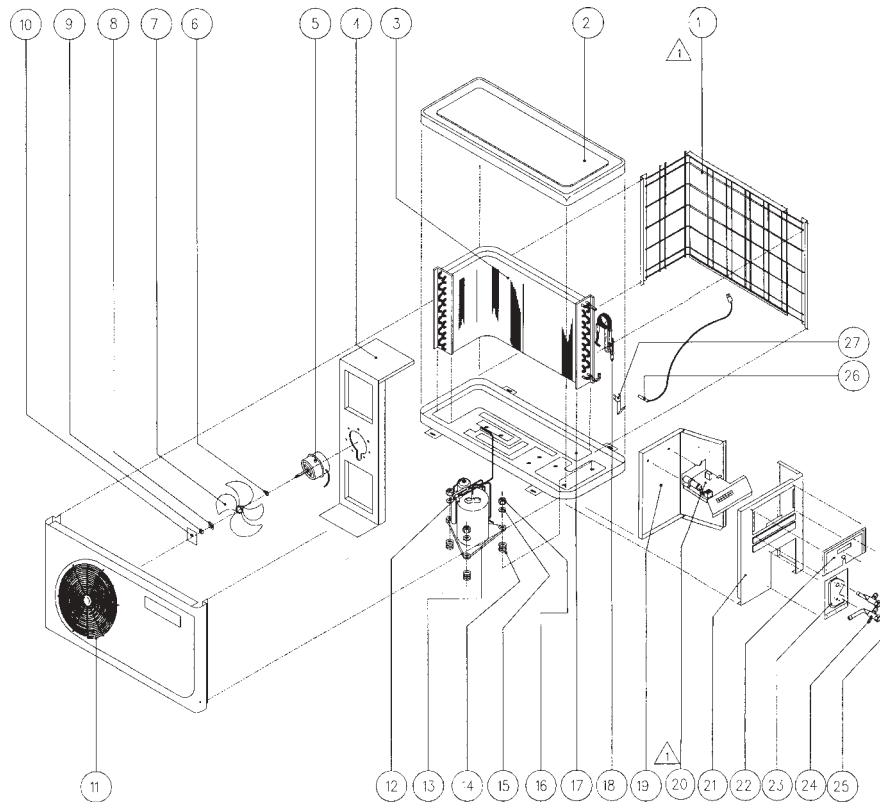
17. PLATE, FLARE VALVE

Model : M4LC 007BR / 010BR / 015BR



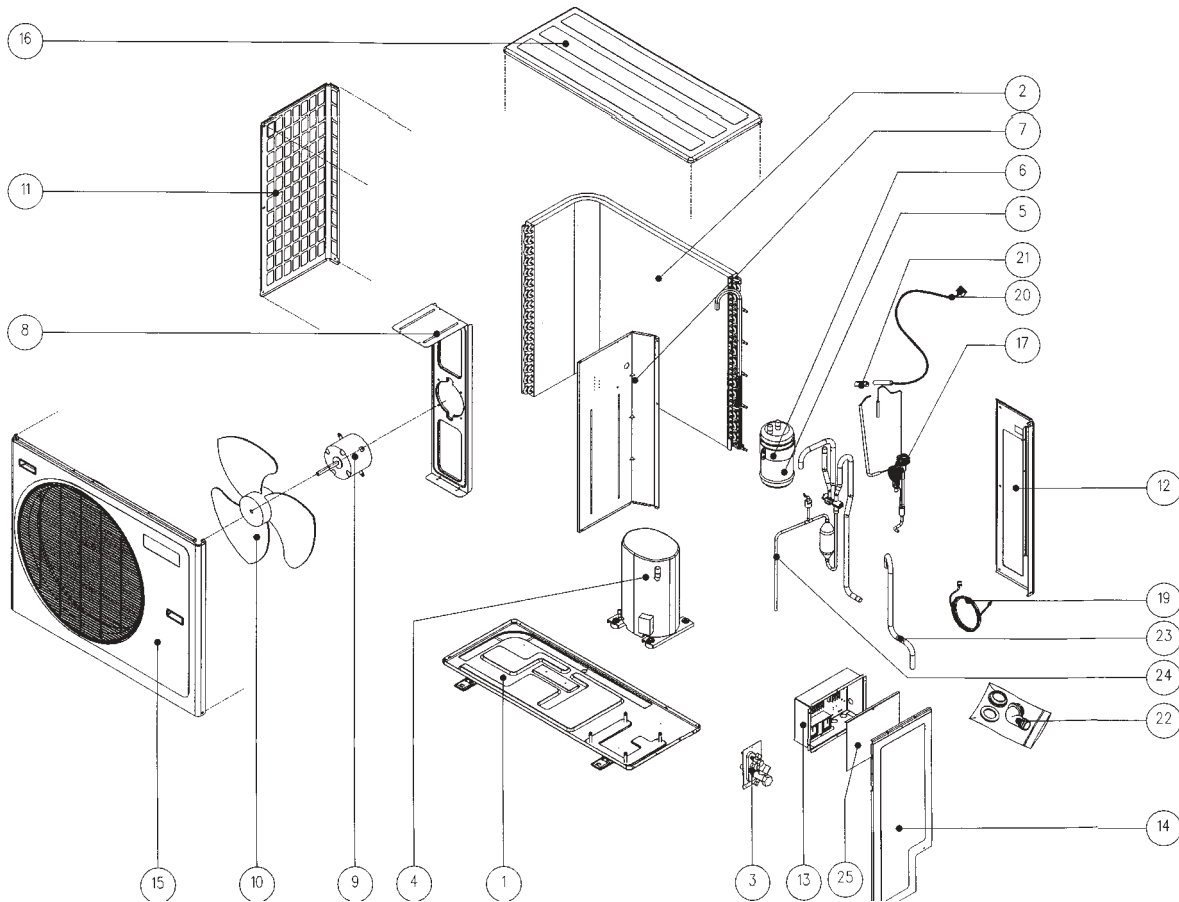
1. ASSY., BACK PANEL	13. NUT, COMPRESSOR
2. ASSY., TOP PANEL	14. ASSY., BASE PAN
3. ASSY, COIL OUTDOOR	15. ASSY., CAPILLARY TUBE
4. BRACKET, MOTOR MOUNTING	16. ASSY., PARTITION
5. FAN MOTOR	17. ASSY., TERMINAL BOX PANEL
6. FAN, 14"	18. ASSY., SIDE PANEL
7. ASSY., PANEL FRONT	19. ASSY., ACCESS PANEL
8. SCREW, FAN SET	20. PLATE, FLARE JOINT VALVE
9. ASSY., 4 WAY VALVE	21. VALVE, SUCTION
10. ROTARY COMPRESSOR	22. VALVE, LIQUID
11. RUBBER, GROMMET	23. CLIP, COIL SENSOR
12. WASHER, FLAT	24. SENSOR, OUTDOOR DEFROST

**Model : MLC 020BR / 025BR / 030BR
M4LC 020BR / 025BR**



1. ASSY., BACK PANEL	15. WASHER, FLAT
2. ASSY., TOP PANEL	16. NUT, COMPRESSOR
3. ASSY, COIL OUTDOOR	17. ASSY., BASE PAN
4. BRACKET, MOTOR MOUNTING	18. ASSY., CAPILLARY TUBE
5. FAN MOTOR	19. ASSY., PARTITION
6. WASHER, RING	20. ASSY., TERMINAL BOX PANEL
7. FAN, 16"	21. ASSY. SIDE PANEL
8. WASHER, SQUARE	22. ASSY., ACCESS PANEL
9. NUT, HEX 3/8"	23. PLATE, FLARE JOINT VALVE
10. BLACK LABEL	24. VALVE, SUCTION
11. ASSY., PANEL FRONT	25. VALVE, LIQUID
12. ASSY., 4 WAY VALVE	26. SENSOR, OUTDOOR DEFROST
13. ROTARY COMPRESSOR	27. CLIP, COIL SENSOR
14. RUBBER, GROMMET	

Model : MLC / M4LC 030CR



1. ASSY., BASE PAN

2. ASSY., COIL

3. ASSY., VAVLE PLATE

4. ASSY., COMPRESSOR

5. ACCUMULATOR

6. ASSY., ACCUMULATOR CLIP

7. ASSY., PARTITION

8. BRACKET, MOTOR

9. MOTOR

10. FAN, 24"

11. PANEL, SIDE LEFT

12. PANEL, BACK RIGHT

13. ASSY., TERMINAL BOARD

14. PANEL, SERVICE

15. ASSY., FRONT PANEL

16. PANEL, TOP

17. ASSY., TXV

18. COVER TERMINAL BOARD

19. WIRE, EXT. (8m)

20. DEFROST THERMISTOR

21. CLIP, COIL SENSOR

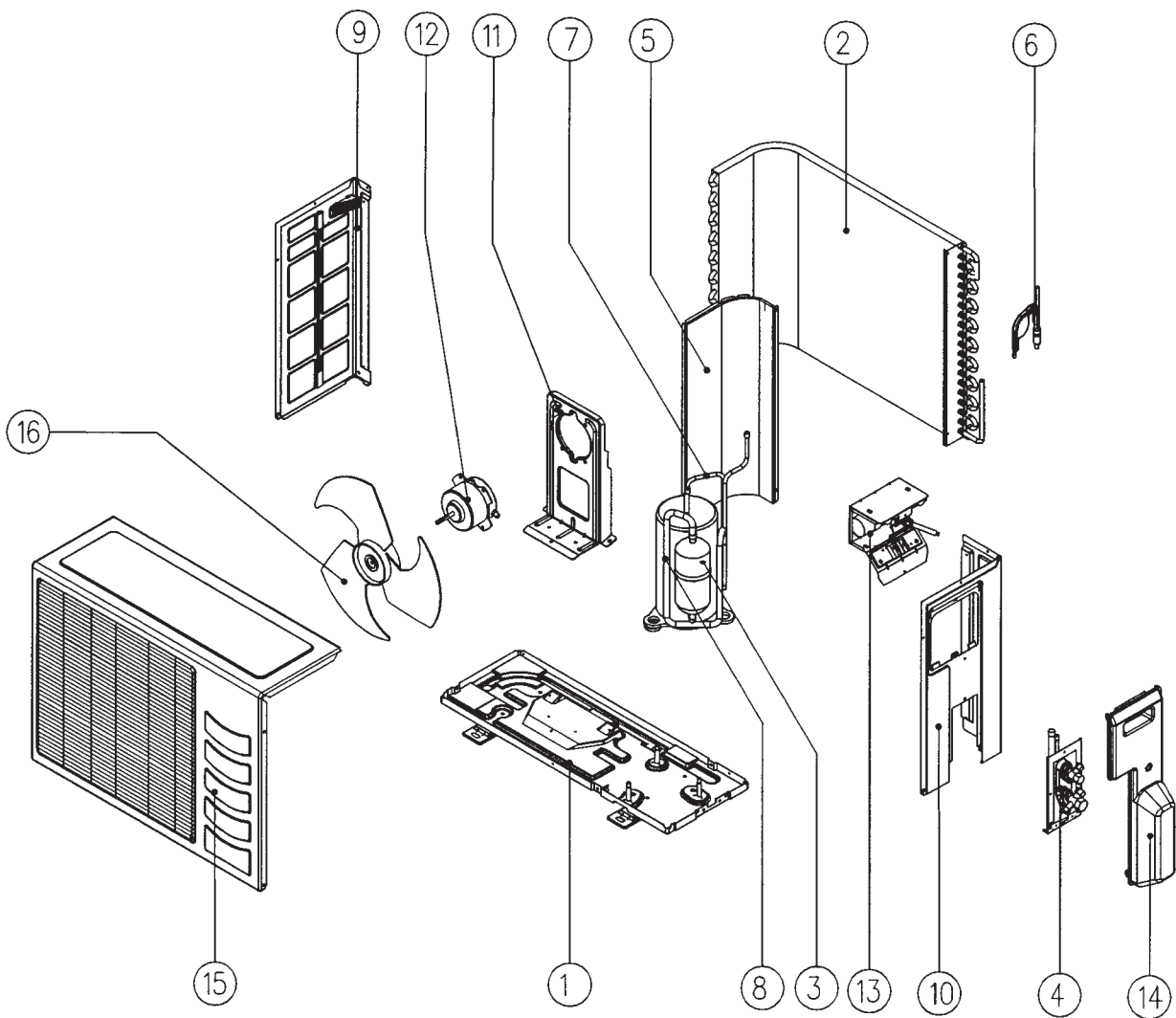
22. ASSY., DRAIN ELBOW PACKAGE

23. TUBE, COMP. SUCTION

24. ASSY., 4 WAYS VALVE

25. COVER, TERMINAL BOARD

Model : MLC 010C / 015C



1. ASSY. BASE PAN

2. ASSY. CONDENSER COIL

3. ASSY. COMPRESSOR

4. ASSY. VALVE BRCKET

5. ASSY. PARTITION INS.

6. ASSY. CAP. TUBE

7. TUBE, DISCHARGE

8. TUBE, SUCTION

9. ASSY. PANEL LEFT INS.

10. ASSY. PANEL RIGHT INS.

11. BRACKET, MOTOR

12. MOTOR

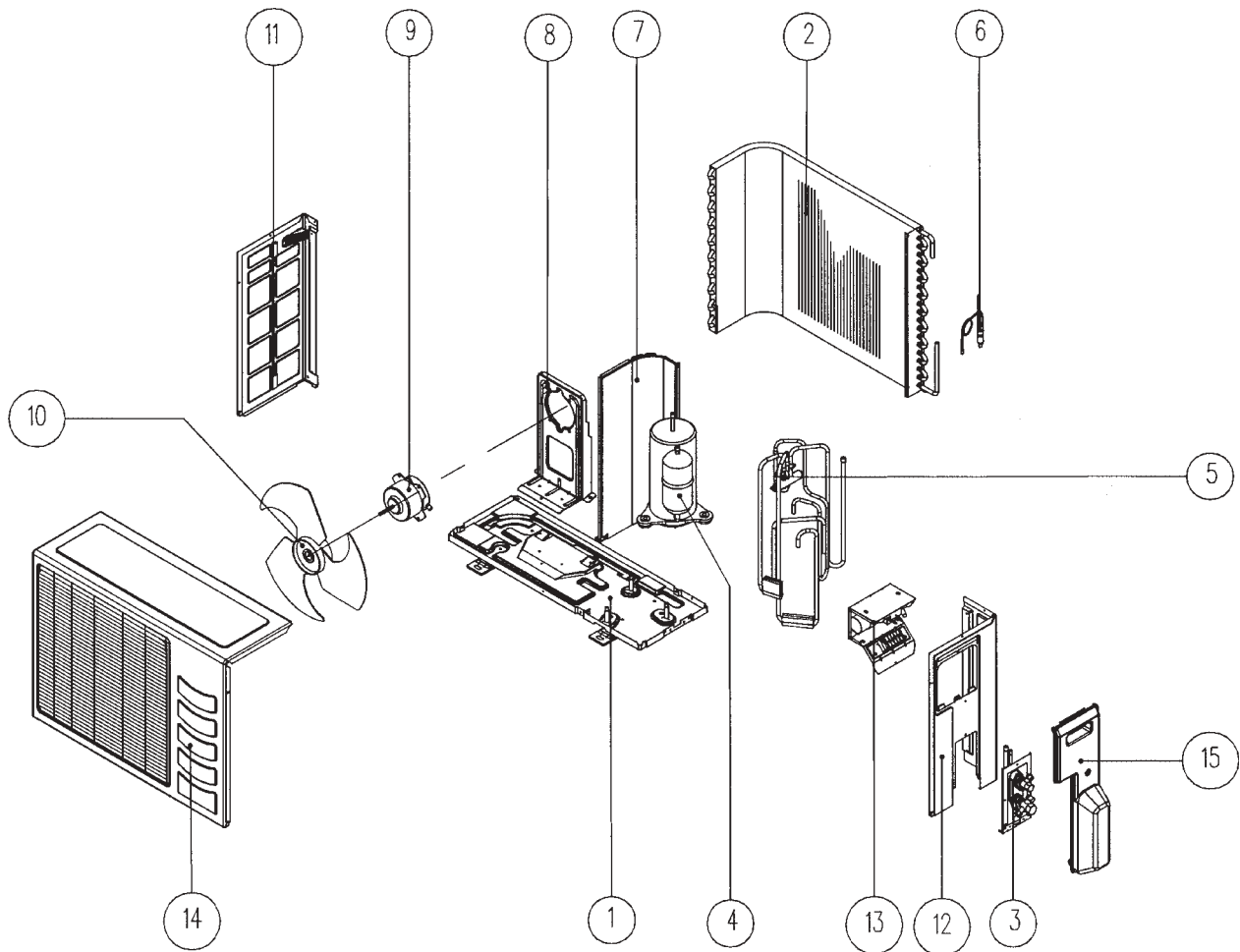
13. ASSY. CONTROL PANEL

14. ASSY. VALVE COVER

15. ASSY. FRONT PANEL INS.

16. FAN, 16"

Model : MLC 010CR / 015CR



1. ASSY. BASE PAN

2. ASSY. CONDENSER COIL

3. ASSY. VALVE BRACKET

4. ASSY. COMPRESSOR

5. ASSY. 4 WAYS VALVE

6. ASSY. CAP. TUBE

7. ASSY. INS. PARTITION

8. BRACKET, MOTOR

9. MOTOR

10. FAN, 16"

11. ASSY. PANEL LEFT INS.

12. ASSY. PANEL RIGHT INS.

13. ASSY. CONTROL PANEL

14. ASSY. FRONT PANEL INS.

15. ASSY. VALVE COVER

